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GRADE 5



SOCIAL STUDIES

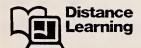
Unit Three:Lessons 23-33

ALBERTA CORRESPONDENCE SCHOOL ALBERTA EDUCATION BARRHEAD, ALBERTA



Social Studies 5

Unit 3





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Correct use of these labels will ensure prompt processing and grading of your lessons.

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Lesson labels are to be attached to the lesson record forms in the space provided for student name and address.

Check carefully to ensure that the subject name, module number and lesson number on each label corresponds exactly with the lesson you are submitting.

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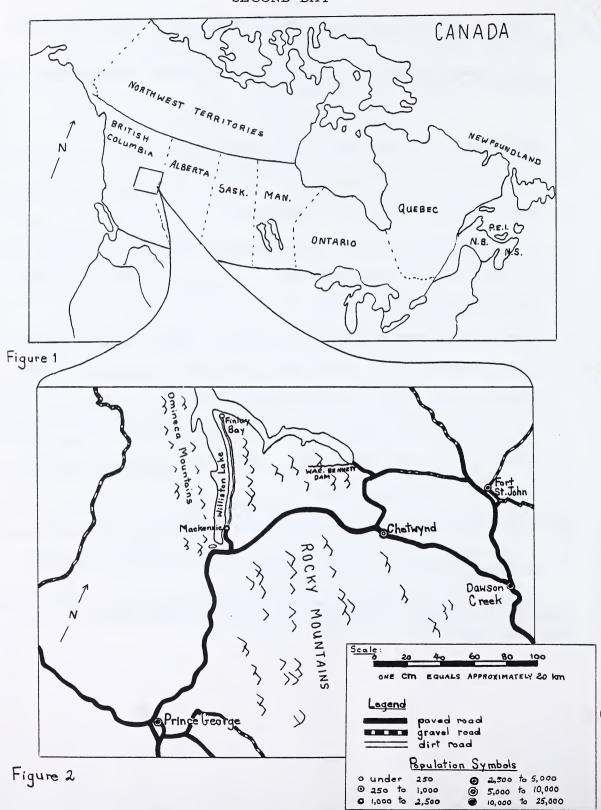
FIRST DAY

This unit will deal with logging in British Columbia. Life in this area may be very different from the region in which you live.

Your answers to the following questions will indicate the differences between the Mackenzie area and your area.

1.	Do you live in an area which is surrounded by wilderness?
2.	Do you live in an area where most things are new?
3.	Have you seen a forest full of huge trees?
4.	Are the roads in your area steep, narrow and winding?
5.	Do big trucks drive past your home? Are any of the big
	trucks carrying logs?
6.	Have you ever been snowed in for weeks at a time?
7.	Have you ever seen any wildlife near your home? If your
	answer is yes, name the wildlife you have seen.
8.	Have you seen a man cutting down a huge tree?
9.	Do you live near a large lake?
10.	Have you ever eaten a meal in a large mess hall?
	(A mess hall is a place where a number of persons take their meals together.)
	Children in the Mackenzie area would answer yes to most of the questions k at your answers. Would you say you live in an area similar to the ekenzie area?

SECOND DAY



A Study of the Mackenzie Area

In this unit you will be studying an area in the province of British Columbia. The area is situated in the interior of the province. This means that the area is located inland far from the coast.

Figure 2 depicts this area. Look at Figure 2 and locate the following places:

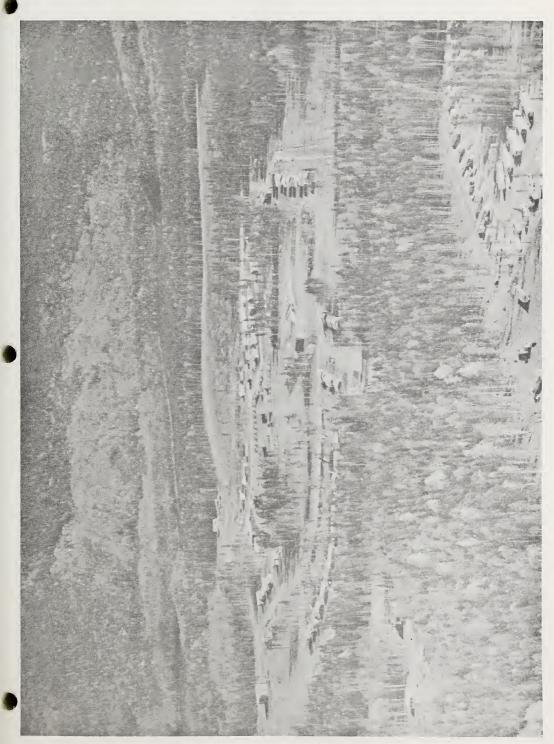
Mackenzie
Prince George
Dawson Creek
Fort St. John
Rocky Mountains
Omineca Mountains
Williston Lake
W.A.C. Bennett Dam

	Use Figure 2 to neip you answer the following	lowing questions.
1.	Mackenzie is approximately	km (direction) of Prince George.
2.	Mackenzie is approximately	km ${\text{(direction)}}$ of Dawson Creek.
3.	If you were driving from Prince George	to Mackenzie you would be
	travelling on what type of road ?	
The	e population symbols will help you answer	the following question.
4.	The population of	
	Prince George is	
	Dawson Creek is	
	Mackenzie is	

Check your answers with the ones at the end of Lesson 23.

5.	Underline the best answer.
	This land is mostly: (see Figure 2)
	1. flat land.
	2. mountainous land.
	3. gently rolling.
	4. very hilly land with steep slopes.
Supp	ort your answer.

THIRD DAY



Courtesy: British Columbia Forest Service Photographer: P. Robin

gure 3 The Townsite of Mackenzie



Figure 3 shows the townsite of Mackenzie.

Use there.	nis picture to help you answer the following questions. Write points them with your supervisor.
Name	the natural resource which is on all sides of the town.
Why w	vas this town established?
s the	town modern? Give reasons for your answer.
 Name	the different types of accommodations (lodgings) in Mackenzie.
 Do yo	u live in or have you lived in a town similar to Mackenzie?
 What	facilities would you hope to find in Mackenzie?

FOURTH DAY

The town of Mackenzie has been established 192 kilometres north of Prince George. In 1965 this area was covered with forests. It would have been a wilderness area. Almost "over night" the forest was transformed into a community.

Town planners planned the layout of the community. The homes are set along curved streets and in the centre of town is a fully enclosed shopping mall.

All residential lots are serviced with water, electricity and sewers. The company (British Columbia Forest Products) is building 440 homes which they will sell or rent to their employees.

Here is a picture of the employees' housing.





Figure 5 Trailer Park Courtesy: British Columbia Forest Products
Limited

There are three trailer parks in Mackenzie.

The new community also contains:

- 1. a modern shopping centre.
- 2. a post office.
- 3. restaurants.
- 4. a hotel.
- 5. schools. (1 elementary, 1 Junior and Senior High School)
- 6. a hospital. (2 resident doctors)
- 7. a dentist.
- 8. recreational facilities;
 - -curling rink
 - -ski hill
 - -golf course
 - -skating rink
 - -Morfee Lake, where one can swim, boat, fish, water ski and sun bathe.

SEND FOR CORRECTION

diffe	plete the list rent from M	Tackenzie.		ow your	town is s	111111111111111111111111111111111111111	or
	Similar to I				Differen	t from Ma	okon z
		raciron 21c			Differen	t IIOIII ivia	CKEIIZ.
			 				
\\\\1	1 1:1-0 4	a lina in B	I - 1-				
woш	d you like t	o live in IV	lackenzie?		Supp	ort your a	nswei
Mack	kenzie exists	s for the so	lle purpose	of the	lumbering	industry.	
	kenzie exists						
	cenzie exists						
Name	e some othe	r towns wh	ich exist fo	or only			
Name		r towns wh	ich exist fo	or only			
Name	e some othe	r towns wh	ich exist fo	or only			
Name	e some othe	r towns wh	ich exist fo	or only			
Name	e some othe	r towns wh	ich exist fo	or only			
Name	e some othe	r towns wh	ich exist fo	or only			

List some towns which exist for more than one reason.

Example:	Edmonton, products,	Alberta garment	- oil refining, manufacturing.	processing	and	marketing	of	farm
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FIFTH DAY

Texture

The surface areas of many materials have varying textures. A rough texture has many ups and downs whereas, a smooth texture has very few surface variations. For example: tree bark has a rough texture while silk has a smooth texture.

In today's art lesson you will be working with textures. Try to find as many examples of texture as possible.

The required materials for this art lesson:

- a heavy piece of cardboard (size approximately $21.5 \text{ cm } \times 28 \text{ cm}$)
- glue
- 3 sheets of art paper
- wax crayons

Below is a list suggesting some materials which show texture.

Suggested Materials

fur
glitter
piece of carpet
tree bark
string
straw
lace work

crushed egg shells
dress material
screening
pins
dry tea leaves
feathers
crumpled paper

Method

Arrange your samples of texture on the piece of hard cardboard. Make the arrangement interesting by varying sizes and shapes, shredding, crushing, overlapping and spacing. When you are satisfied with your arrangement, glue the pieces in place. Now put a sheet of art paper over your textures. Take a crayon and make even strokes over your design. This technique is called rubbing. Once you have completed your first rubbing, remove your sheet of art paper from the design.

Experiment by making several rubbings using three or four different colors.

Choose the rubbing which you like best and put your file number and name on the back.

SEND FOR CORRECTION













ANSWERS TO LESSON 23

Page 3

- 1. 130 km, north
- 2. 180 km, west
- 3. paved
- 4. Prince George 10 000 to 25 000 Dawson Creek 10 000 to 25 000 Mackenzie 1000 to 2500



LESSON RECORD FORM

0503 Social Studies

Unit III

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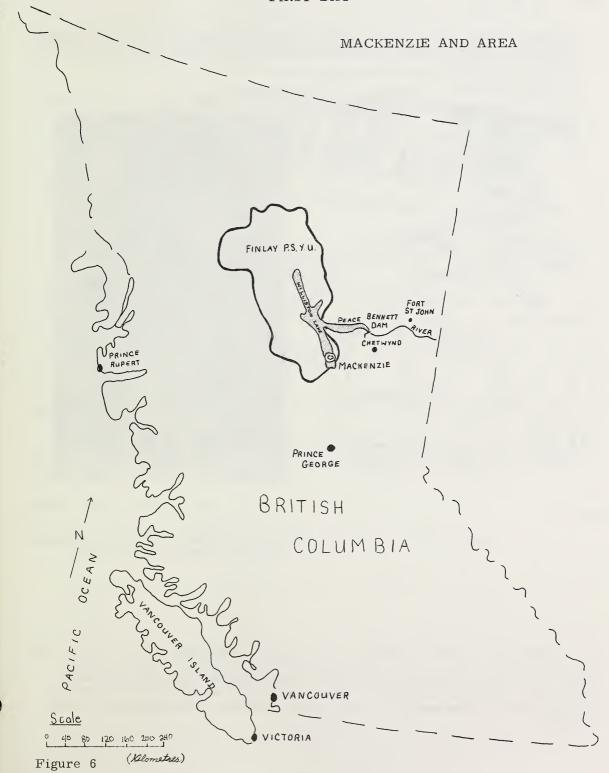
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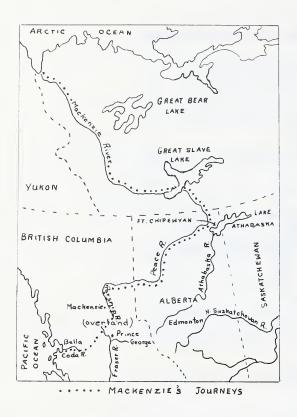
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FIRST DAY



History of the Area



Fir Alexander Mackenzie

On de Inguished explorer of the North-West Company (1950).

Figure 7

Figure 8

Courtesy: Public Archives of Canada

Alexander Mackenzie passed over this Rocky Mountain trench in 1793. For his campsite he chose a spot approximately 192 km north of Prince George. Today the town of Mackenzie is located in this general area and has been named after the first European to pass through the trench. The townsite of Mackenzie was wilderness until 1965 when it became a bustling town of 1,800 people.

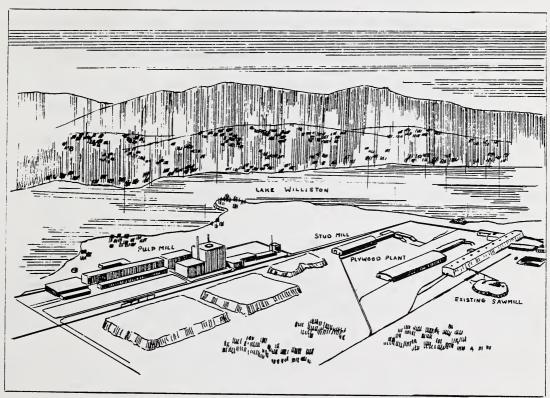


Figure 9

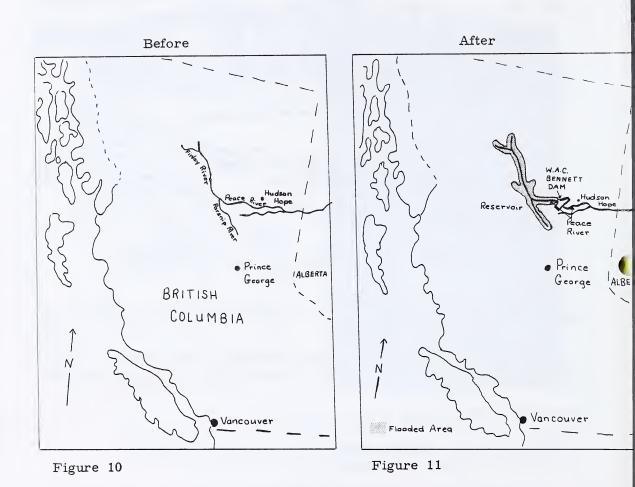
The industrial (manufacturing) site is situated on the shores of Lake Williston and is eight kilometres from the community. The plants and mills will employ approximately 580 men.

SEND FOR CORRECTION

1.	How would this industrial site help the people of Mackenzie? Answer in complete sentences.

SECOND DAY

Look back at Figure 6 and find Lake Williston. Notice how large an area is covered by this lake. This lake has a very unusual origin. By studying the two figures below you can find out about the formation of Lake Williston.



Look at Figure 10.

- 1. Can you find a water formation with a shape similar to Lake Williston?
- 2. Name the three rivers.

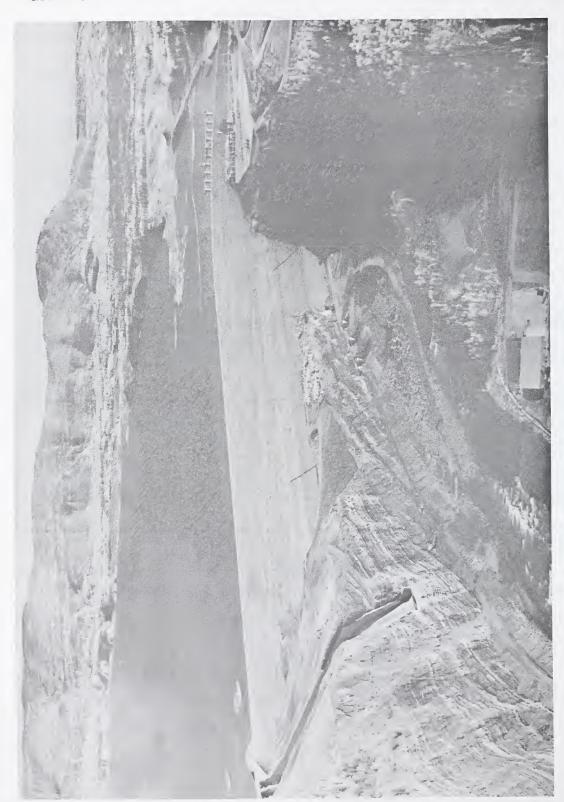
3.	Are the rivers in the same general location as Lake Williston?
Now	v look at Figure 11.
4.	In place of the three rivers we now find a large
5.	Locate the reservoir. (Reservoir refers to a place where water is collected and stored for future and current use.)
	Another name for this reservoir would be
6.	Name the river that runs out of the reservoir.
7.	Locate the W.A.C. Bennett Dam. (A dam is a wall built to hold back water.)
	The W.A.C. Bennett Dam is responsible for the creation of
	•
	Read the caption below. Then turn the page and you will see a picture

W.A.C. BENNETT DAM

of the W.A.C. Bennett Dam.

One of the world's largest man-made structures, W.A.C. Bennett dam is 183 m high and extends 2 km across the Peace River Valley. When the reservoir behind the dam is full, it will cover 1584 sq. kilometres and will be British Columbia's largest lake. The dam was completed in September, 1967.

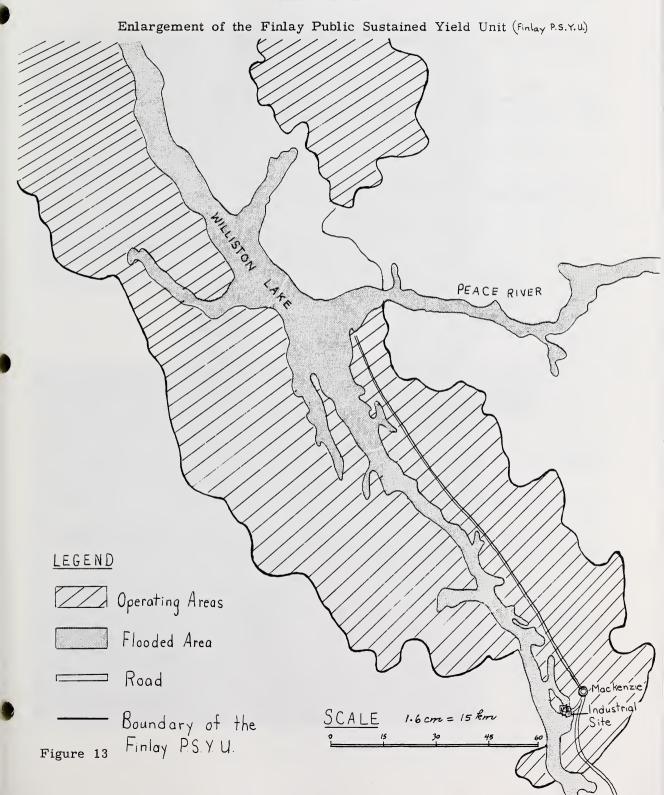
Check your answers to pages 4, 5 with those at the end of Lesson 24.



Courtesy: B.C. Hydro and Power Authority Photographer: Len Peace

Figure 12 Aerial View of W.A.C. Bennett Dam

THIRD DAY



THE FOREST AREA

In this forest area you will find a balanced forest, which means that the timber is generally scattered and is separated by areas of immature timber. The types of trees found in this forest are:

CONIFEROUS TREES

Coniferous trees retain their leaves and needles for more than one year. Three coniferous trees flourish in this area. They are:





Figure 14

White Spruce Needles

Cone

1. Western White Spruce

The young trees have a conical appearance and a rounded top. Their lowest and longest branches come close to the ground.

These trees reach heights of $30.5 \, \text{m}$ and have diameters up to $1.2 \, \text{m}$.

The bark of the tree develops small plate-like scales, which are ashy brown in color.





Stand of Spruce Figure 16

Figure 15

Courtesy: British Columbia Forest Service Photographer: P. Robin Bark of Spruce

m to 30.5

from



Needles and Cones

J. Andre Photographer:

British Columbia Forest Service Courtesy:

This is a tall slender tree. The branches usually extend all the way down the tree trunk. bark is comparatively smooth and greyish-brown in color. The tree varies the diameter ranges from 15 cm to 50 cm. Lodgepole Pine

2.

3. Balsam Fir



Figure 18

Needles and Cones of Balsam Fir

Courtesy: British Columbia Forest Service

Photographer: B. Davies

The tree is 15 to 21 m in height and has a diameter ranging from 30 to 43 cm. The crown has dense foliage and is spire-shaped. This effect is produced by regular whorls (circular arrangement) of horizontal branches. The trunk is usually marked with blister-like pockets.



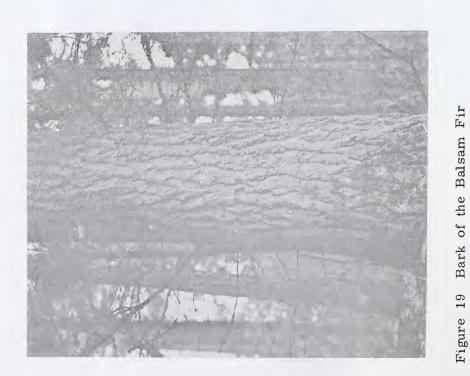


Figure 20 Stand of Balsam Fir

Courtesy: British Columbia Forest Service Photographer: B. Davies

DECIDUOUS TREES

Deciduous trees lose their foliage every year.

In the Mackenzie area there are primarily two types of deciduous trees. They are:

1. Aspen



Figure 21 Twig and Leaf of Aspen

The crown of this tree is open and rounded. The trunk is well formed and clear of branches. An aspen tree is often 15 to 21 m tall, and diameters range from 25 to 35 cm.

The bark is a whitish-gray color.

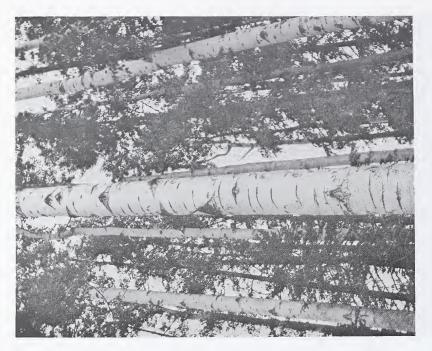


Figure 23 Bark of Aspen Courtesy: British Columbia Forest Service Photographer: J. Rever

Stand of Aspen

Figure 22 Photographer: P. Johnson



Figure 25

Stand of Birch

2. Birch



birch twig, catkin, and leaf. Figure 24

The crown of the birch tree is round and irregular. The trunk is long, well-formed and clear of branches. Birches vary from 15 to 21 m in height and their diameter is approximately 6 m or 60 cm.

The bark is dark at first but as the tree ages the bark becomes creamy-white in color.

Courtesy: British Columbia Forest

Service

Photographer: P. Robin



Figure 26

Bark of Birch

Courtesy: British Columbia Forest

Service

Photographer: P. Robin

SEND FOR CORRECTION

were the	rees in your planted by	man?	urnood	part of t	ne natura	I environm	ent o
How is the	e forest (the	e Finlay Answer	Public in com	Sustained plete ser	l Yield Un ntences.	nit) import:	ant to

TO DO

Draw some of the different types of trees in your area. Near the bottom of the illustration draw one of the tree's leaves. At the top of the drawing indicate whether the tree is coniferous or deciduous.

FOURTH DAY

Review the information which has been presented in Lesson 24. Use this information to help you answer today's questions.

SEND FOR CORRECTION

locati	ion.											
									··			
						· · · · · ·						
												
What	factors	migh	nt cau	se p	eople	e to	move	e to I	Macke	enzie?		
											· · · · ·	
						-7.0						
Look rees	around ? Nam	your e as	home many	as ;	How 1	man an.	y diff	erent	thing	gs are	e made	e fron

FIFTH DAY

ART

Weaving with Wool

Let's weave with wool and two sticks.

Read the instructions carefully and then use your own ideas, materials and arrangements to make a weaving that is all your own.

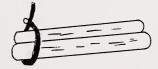
- Instead of four spokes you may want to try six or eight.
- The spokes can be: tree twigs, wire, wood dowels, popsicle sticks, plastic rods, cardboard tubing, O-tips.
- For weaving, use wool, binder twine, crochet thread, tapes, cloth cut into ribbons, weeds or any material you can find.

Here's how:

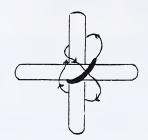
- Gather several pieces of different colored yarns.
- Find two sticks or dowels that are about the same length.



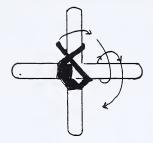
 Lay the sticks side by side and pass one slip knot over the two sticks.
 Slide it to the center of the sticks.



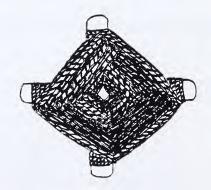
- Cross the sticks at their centers and wrap the yarn over the centers one way, then the other, until your two sticks have square angles.



- Begin wrapping the yarn over and around the first stick to the right. Bring it up on the left side of the same stick. Pull the yarn to the next stick and repeat. Keep your yarn fairly tight.



- Go around the four sticks many times. The rows of yarn must be close together.
- Change colors by tying on a new piece of yarn just as you are ready to wrap it around the back of one of the sticks.
- Wind the yarns until your weaving is as big as you want it. Finish it with a knot on the last stick.



ANSWERS TO LESSON 24

Page 4

- 1. Yes
- 2. Finlay River, Parsnip River, Peace River

Page 5

- 3. Yes
- 4. reservoir or lake
- 5. lake
- 6. Peace River
- 7. Williston Lake



LESSON RECORD FORM

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Unit III Revised 88/01

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FIRST DAY

Logging Operations

1. Planning the Operation



Before a logging operation begins, the area to be logged must be studied. This information is gathered by a crew of two or three men. This process of collecting data and information is called timber cruising.

Figure 27

Timber cruisers use the following materials:

- aerial photographs (show elevations , location of water, tree types)
- topographic maps (same use as aerial photographs)
- compass
- -measuring tapes
- -prisms (to find volume of trees)
- -levels (to find the height of trees)

As well as studying maps and photographs in detail, the cruisers also study a small plot of trees in detail. In this small area they do the following:

- 1. count every tree
- 2. measure the diameter
- 3. determine the age of the tree

To see how old a tree is, a man must bore a hole in the tree trunk. The instrument he uses is called an <u>increment borer</u>. The pictures below will explain how the instrument works.

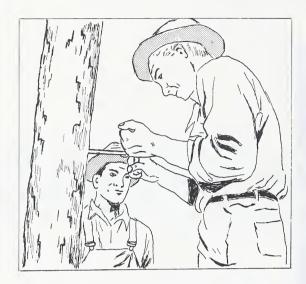


Figure 28

This man is boring a small core from the tree, with the increment borer.



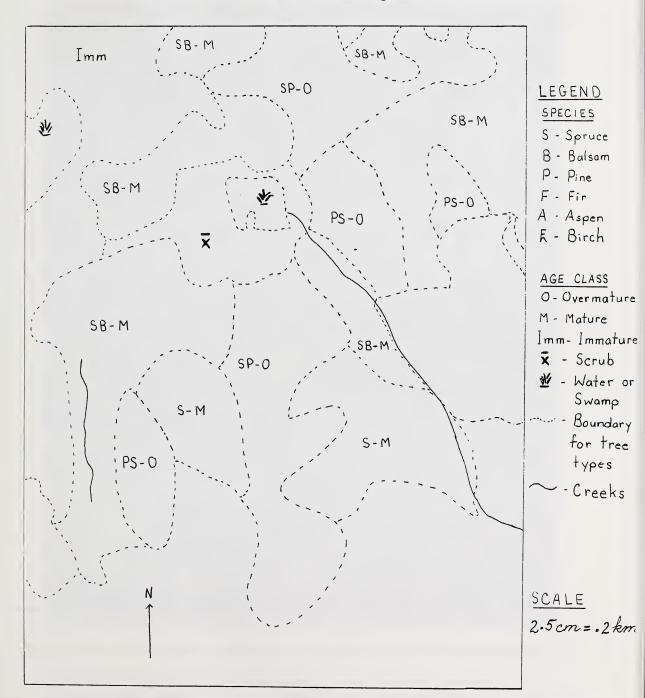
Figure 29

The man is holding the core. Notice that the growth rings at the outer edge (see arrow) are close to one another. This means that the growth of the tree is slowing down, so this tree is ready for cutting.

Once the cruise is completed the cruiser must report his findings. The report consists of two parts.

- 1. the cruise map (Figure 30) showing the location of the trees
- 2. a detailed written description of the cruise

Here is a map showing the types of trees in the area to be logged. To understand this map you must make use of the legend.



	ature tree is	more easily	affected by	plant diseas	d full growth. e and weather.
Tell	me what an	area marke	ed SB-M woul	d be like.	
-					
Which	areas do v	on think wil	ll he logged?	(Underline	the best answe
				(01120111110	o Sost answe
	'he area witl 'he area witl				
	he area with the scrub ar		e trees		
	he area with		ees		
I,eII	what an area	marked SF	P-O would be	like.	
Desci	ibe the area	marked $\overline{\times}$.	*****		
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Would	the area m	arked Imm	provide a go	od supply of	. Iumber:
Would Why?	l the area m	arked Imm	provide a go	od supply of	i lumber :

Check your work with the answers at the end of Lesson 25.

SECOND DAY

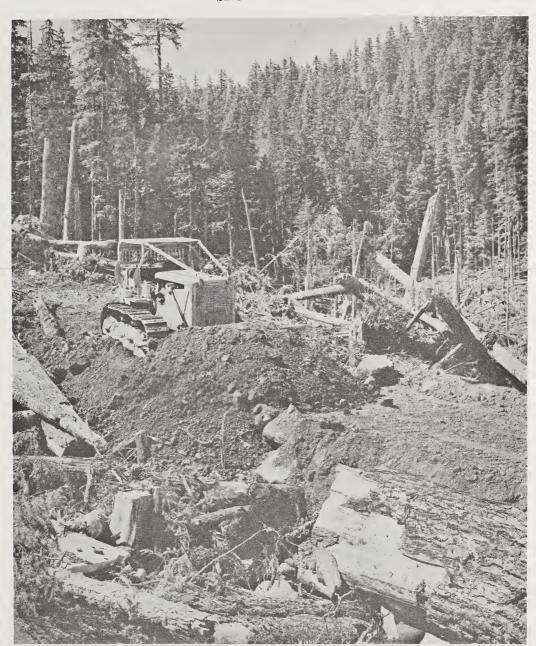


Figure 31 Road Construction

Courtesy: Northwest Bay Logging Co. Ltd.

Now that the timber cruise is finished, the next operation is the planning and constructing of roads.

Why are good roads necessary?

Map Showing Roads, Landings and Settings

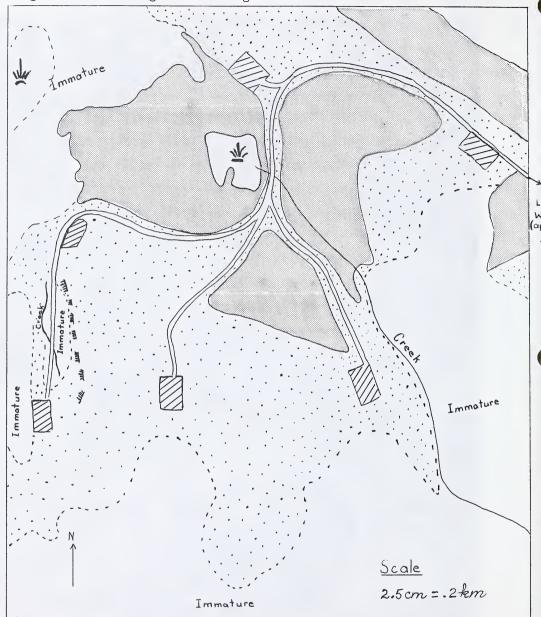


Figure 32

Legend

main haul roads
landings
---- cutting boundary
logging area

timber reserved (set aside) for cutting arop off swamp or water creek

The logging company is now ready to plan its logging operation and its road construction. The information gathered on the timber cruise will be the basis for the plans. The company also wants the planners to take the following into consideration.

The logging operations will be conducted in areas where roads can be built from the logging area to Lake Williston. The road should be short and direct and involve the least possible amount of road construction. Lake Williston offers the only economical (thrifty) way of reaching the timber in the Finlay P.S.Y.U.

Look on page 6 for your information.
Do all the roads lead to Lake Williston?
Are the roads relatively close to Lake Williston?
What natural obstacles (hindrances) would the road builders encount
Would they have to build any bridges?
Would the company be pleased with the road plan?
Give your reasons.

The diagram below is a small section of the map on page 6. On the diagram notice the areas labelled; setting, landing and haul road. These three things are very important to the logging operation.



The setting is the area in which the logs are cut. The logs from the setting are then assembled (brought together) at the <u>landing</u>. At the landing the logs are loaded on trucks. The trucks will then use the main haul road for transporting the logs.

Figure 33

Turn back to the map on page 6 and ask your supervisor to watch while you:

locate the landings. show the cutting areas. trace the route that the logs would travel from each landing to Lake Williston.

THIRD DAY

Cutting the Trees

1. Falling the Trees

A man called the <u>bull buck</u> is in charge of the cutting operation. One of his jobs is to supervise the fallers. The bull buck assigns each faller to his cutting area. Once assigned to his area, the faller must study the trees carefully.

The faller is concerned with:

1. How he cuts the tree.

He wants the tree to fall so that it creates the least amount of damage to the other trees or logs.

2. Safety.

He must watch for "widow makers", which are trees that may not fall properly and as a result could hurt him. Trees may not fall properly because of high winds, other leaning trees, or heavy snow loads at the top.

Once the faller has assessed the tree, he cuts away the underbrush.

He then makes the undercut which is shown in Figure 34. To make this cut, he cuts a notch in the tree to govern the direction in which the tree will fall and to prevent the tree from splitting.

The last cut is the backcut. (Figure 35)

As the backcut comes nearer the undercut, the faller can tell that the tree is going to fall in the right direction. He then checks to see if the area is clear. The faller then finishes the cut, pulls his saw from the tree and moves several feet away from the tree. The tree then falls to the ground with a thud.



Making the Undercut

Figure 34

Courtesy: British Columbia

Government Photograph

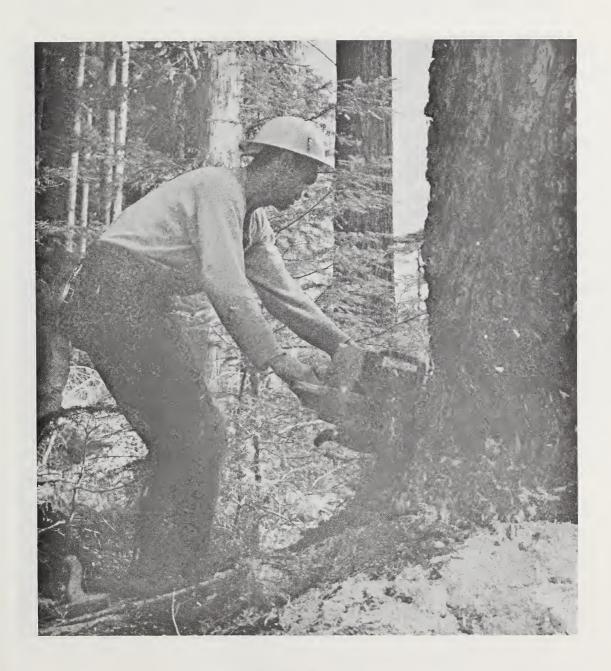


Figure 35

Making the Backcut

Courtesy: British Columbia Forest

Service

Photographer: B. Davies

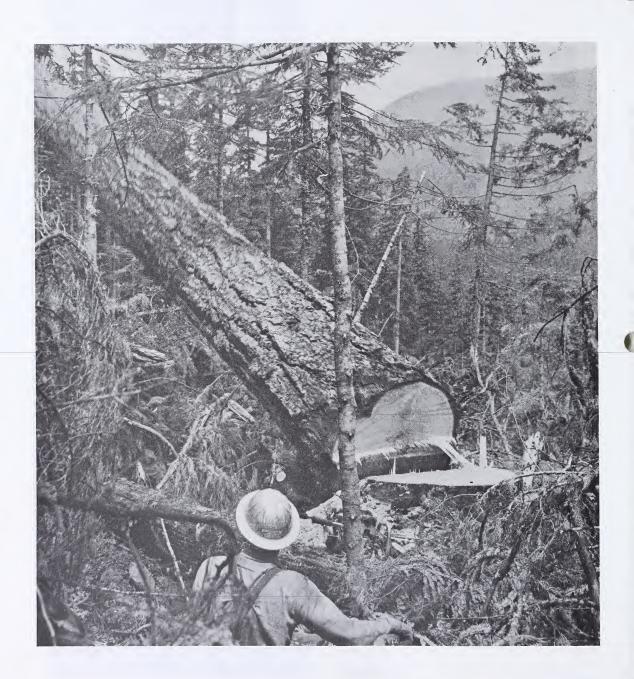


Figure 36

The Tree Falling

Courtesy: British Columbia Forest

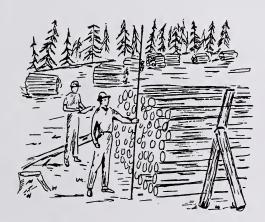
Service

Photographer: B. Davies

The next step in the logging operation is called <u>bucking</u>. The man in charge is called a <u>bucker</u>. He cuts the trees into lengths before they are transported to the landing. The trees can be transported in either of two ways.

- 1. full tree lengths (In this case, the bucker removes only the branches and the tops.)
- 2. measured logs (In this case, the bucker measures and cuts the trees into 6.1 and 12.2 m lengths.)

Cutting logs the correct length is very important because this determines the value of the logs.



After the faller and the bucker, comes the scaler. His job consists of measuring the amount of lumber which has been cut. He uses a scaling stick to help him determine the volume of the lumber. The scaling stick tells the scaler the diameter of the log, the length of the log and the volume of the log. By looking at his stick he can read off all the required information.

This information is then recorded on a tally sheet.

Figure 37

1.

SEND	FOR	CORREC	MOIT

Why	is	nature	(snow,	rain,	wind)	important	to	the	loggers?	 	
				b							
						· · · · · · · · · · · · · · · · · · ·					-

FOURTH DAY

Yarder and Loader at the Landing



Figure 38

Courtesy: British Columbia Forest Service

Yarding

Yarding refers to the method in which one would bring the logs to the landing.

There are two main methods used for bringing the logs to the landing. They are:

- 1. high lead yarding
- 2. skidding

At the same time that the faller is in the forest cutting trees, a crew is deciding how to transport the logs to the landing.

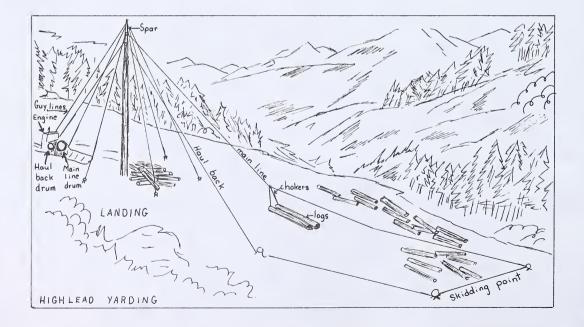
If they have chosen high lead yarding, a crew must set up the machine (varder) which will bring the logs to the landing.

If they have chosen skidding they must plan and construct skid roads.

Let us study each method separately.

HIGH LEAD YARDING 1.

To help you understand this method, study the diagram below.



While you are studying Figure 39, point out the following parts to your supervisor.

Spar - This ranges in size from 25 to 35 m above the ground.

Guy wires - The spar is secured by these wires.

Main line

These two lines are hooked to stumps or blocks that are → 180 to 360 m from the yarder.

Chokers - are used to transport the logs from the skidding point to the landing. The chokers are hooked around the logs; they then travel up the main line to the landing. At the landing the logs are unhooked, and the chokers travel down the haul back line to the skidding point. Here the chokers will pick up some more logs and repeat the operation.

Engine - supplies the power for the yarding operation.

The Yarding Crew

The yarding crew is supervised by an area foreman who is in charge of all the landings and settings in a certain area.

The yarding crew consists of:

<u>Chokerman</u> - He places the chokers around the logs. He tells the hook tender when the choker is tight.

Hook tender - He checks the chokers. If they are properly placed he sends a radio signal (on a radio similar to a walkie-talkie) to the yarder. When the yarder hears this "beeping" sound he knows that the logs are ready to be hauled on the main line.

Yarder - He operates the engine. The power from the engine turns the drums that the main line and the haul back lines are attached to.

Chaser - He works at the landing. When the logs reach the landing he unhooks the chokers.

This same cycle repeats itself until all the logs have been removed from the area. Then the yarder and the crew move to a new landing.

SEND FOR CORRECTION

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			······································						
V	/hich job /hy?	in the	yarding	operati	on woul	d you p	refer? _		
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	71 . 1								
W	hat know	dedge an	ıd expei	rience v	would yo	u have	to have	for this	j o b

FIFTH DAY

Yarding

Bringing the Logs to the Landing

2. SKIDDING

The main method used for transporting logs to the landing in the Mackenzie area is called <u>skidding</u>. Skidding involves the use of tractors (the size of which depends on the type of tree to be moved) for transporting logs. Because these vehicles are being used, the planners must develop a road system.

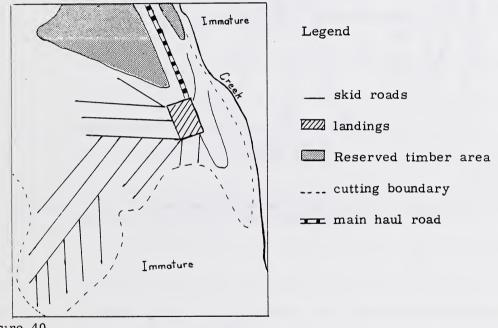


Figure 40

Look at Figure 40. This is a section taken from Figure 32 (page 6 of Lesson 25).

Locate the skid roads. All the skid roads run from the cutting area to the _____.

The roads in most cases could be referred to as "beaten paths" rather than constructed roads.

The skid roads are very important to the faller. The faller must now consider the location of the skid roads when felling the trees. The trees must be properly felled so that they can easily be reached by the tractors. The diagram below shows the correct method of felling.

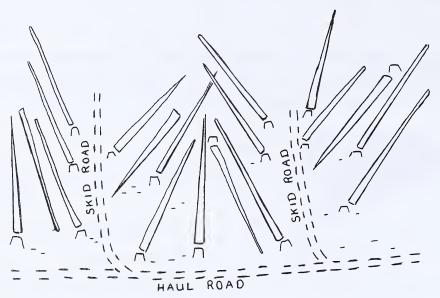
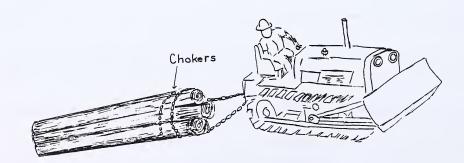


Figure 41

The next stage of the skidding operation involves the use of tractors.



Each tractor is equipped with a winch. A winch is a hoisting machine in which the chain is wound up on a drum. This drum is run by the engine. When the tractor reaches the cut logs, the operator releases the winch line to which the chokers are attached. The chokerman stands among the logs and places the chokers around the group of logs to be pulled or skidded. After the chokers are secured the tractor operator tightens the winch line. The logs are now ready to be hauled down the skid roads to the landing.

1.	the blan	whether the questions below are true or false by placing (T) in k if it is true and (F) if it is false. If it is false, correct the at on the lines below.
(a)		Timber cruising is a process of collecting data on trees in an area.
(Ъ)		Lumbering is an important industry in British Columbia.
(c)		Roads are built before the timber cruise is finished.
(d)		A bucker is a man who cuts the tree into different lengths.
(e)		The faller is not concerned about the way each tree falls.

Check your answers with those at the end of Lesson 25.

ANSWERS TO LESSON 25

Page 4

- 1. It would have lots of mature spruce and balsam. It would be good for logging.
- 2. The area with mature trees.
- 3. It would have mostly overmature spruce and pine.
- 4. It is an area of scrub. This would be short trees and bushes which are not suitable to logging.
- 5. No. It is immature and the trees are not yet fully grown. It would be better to wait a few years.

Page 7

- 1. Yes
- 2. Yes
- 3. They would need to be aware of the creeks, the drop off or cliff and swampy areas.
- 4. Perhaps over the creeks.
- 5. Yes. The roads and landings get into all the good parts of the logging area and they are not long and fairly straight.

Page 21

- 1. (a) T
 - (b) T
 - (c) F Roads are built after the timber cruise is finished.
 - (d) T
 - (e) F The trees must fall in a certain way to avoid hurting anyone.

LESSON RECORD FORM

0503 Social Studies

Unit III Revised 88/01

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FIRST DAY

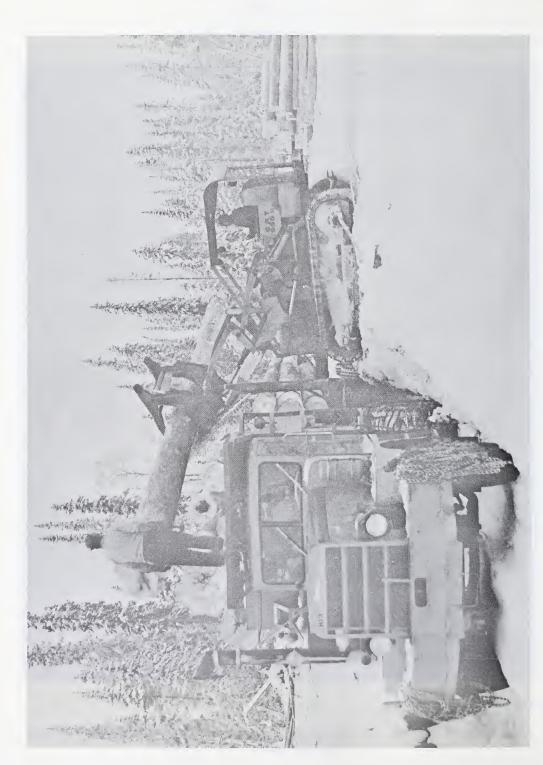
Moving the Logs



Figure 43

Grapple

Courtesy: British Columbia Forest Service Photographer: P. Robin



Courtesy: British Columbia Forest Service Photographer: P. Robin

After the logs have been assembled at the landing they are loaded on trucks.

Figures 43 and 44 show two ways in which the trucks are loaded.

Figure 43 shows a grapple being used to load logs on a truck.

To load the logs on the truck, the grapple operator must do the following:

- 1. swing the grapple over a log
- 2. pick up the log
- 3. swing the grapple and log over the truck
- 4. release the log

This procedure is continued until the truck is loaded.

SEND FOR CORRECTION

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			~~~													
													- III v Later Advan			

# SECOND DAY



Figure 45

A Truck Hauling Logs to Lake Williston

Courtesy: British Columbia Forest

Service

Photographer: B. Davies

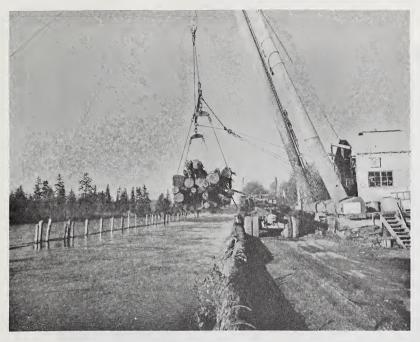


Figure 46

Courtesy: British Columbia Government Photograph

When the trucks arrive at the log dump, they are unloaded.

Figures 46 and 47 show how the trucks are unloaded.

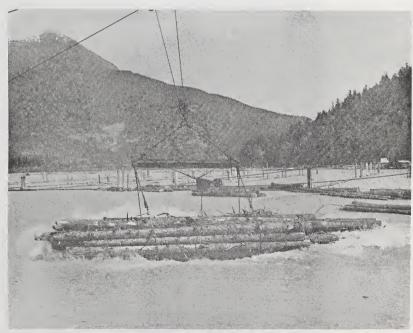


Figure 47 Courtesy: British Columbia Government Photograph



- 6 -

Courtesy: British Columbia Forest Products

rigure 48

In the Mackenzie area the logs are transported in "bundle booms". To form the bundles the logs are bundled together by straps or cables and put into the lake.

While they are being towed by dozer boats to the mill₂a few logs may break loose, but most will come through safely.

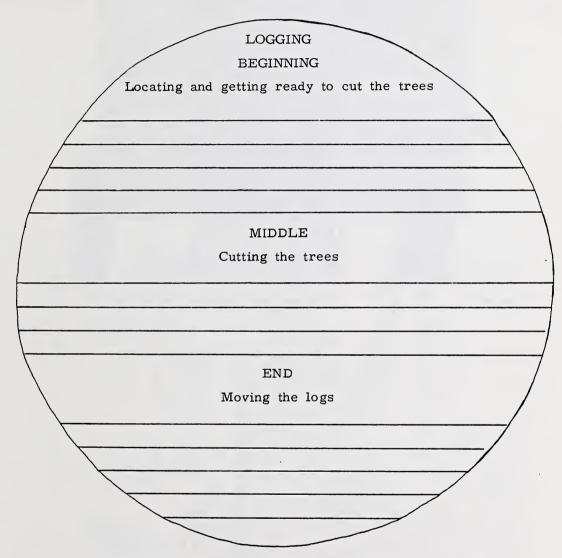
# THIRD DAY



Courtesy: British Columbia Forest Service Photographer: P. Robin

Figure 49

### SUMMARY OF THE LOGGING OPERATION



Write the words below under the proper headings.

timber cruising bucking yarding
water transportation sorting dumping
road building falling setting up a
landing

skidding planning scaling hauling

# FOURTH DAY

In the past logging methods differed greatly from those used today.

Study the scenes illustrated below. While you are studying your pictures think of the differences in logging then and now.

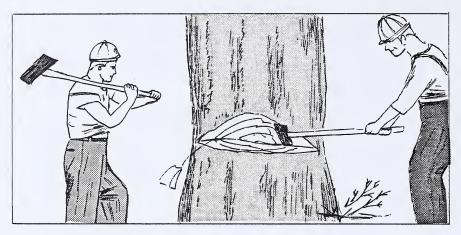


Figure 50

Making the Undercut



Figure 51

Making the Backcut



Figure 52 Skidding



Figure 53 Loading

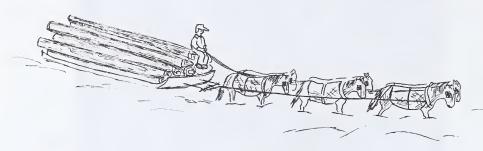


Figure 54

Hauling

# SEND FOR CORRECTION

s the present	day logging more	e mechanized	than it used	to be? _
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)o machinas		1 00	4.0	
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f your answer	save the loggers t	ime and effo machines w	rt? hich will save	the logge
f your answer	save the loggers t	ime and effo machines w	rt? hich will save	the logge
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Oo machines s f your answer nd effort.	save the loggers t	ime and effo machines w	rt? hich will save	the logge

V	Would Why?	you	rather	be	a 1	logger	in	the	past	or	the	presen	t?	 	
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_															
_															
-04														 	
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#### FIFTH DAY

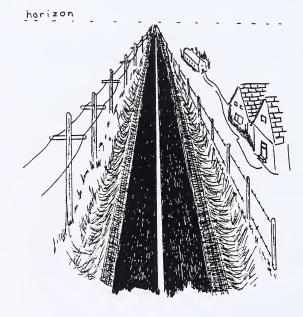
#### ART

Pictures of three-dimensional objects are difficult to make on a flat page. Artists have ways of drawing shapes to make them appear real to us. They often use perspective, overlapping and detailing. Let us study these three methods.

# 1. Perspective

Look out your window. Notice your surrounding area.

Tell your supervisor what objects you see. Do the nearer objects look different from those objects in the distance?

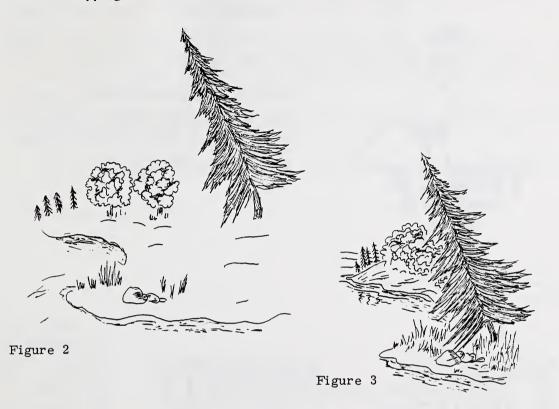


artists to show the way things look. You have probably noticed that the farther away something is, the smaller it appears to be. Also. lines which you know are the same distance apart and never meet. seem to meet in the distance. A road or a railroad are a good example. Notice on this drawing how the sides of the road come to a point on the horizon, the telephone poles become shorter. and the house that is farther away appears much smaller than the one which is nearby. Perspective must be used to make the scene appear natural. We know the sides of the road never meet, the telephone poles do not become smaller, and the two houses are not that different in size.

Perspective is often used by

Figure 1

# 2. Overlapping



The trees in Figure 2 are set out in a stiff straight line. Notice the difference in Figure 3 where the trees overlap or partly cover one another.



Figure 4 shows overlapping. In this picture people are overlapped to represent a crowd. You cannot see each person clearly because part of the person is covered by another person.

Figure 4

# 3. Detailing



Detailing is another technique used to add depth to your picture. Notice how the boy at the front of the picture is drawn showing details like hair, toes and fingers, while the boys in the distance are only outlined.

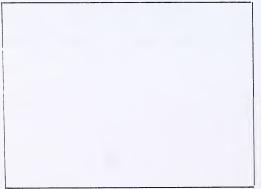
Figure 5



Figure 6

Figure 6 is an example of a picture using detailing. To give depth to the picture the objects in the foreground are drawn with more detail than the objects in the background.

in	the	boxes	perow,	draw	sketches	01	the	trees	debrcted	ın	Figure	Ь,



Draw a tree in the foreground.

Draw a tree in the background.

Look back at the figures in the art lesson. Note that each picture usually combines all three techniques to achieve depth.

Remember the lower edge of any picture is the first part to be Hint: looked at. This edge must be full of interesting things, shapes, colors, lines, to capture the viewer's attention and to lead the eye to the main part of your picture.

Draw or paint a picture using these three techniques to give depth to your picture. You may choose your own topic.

When you have finished, write your name and file number on the back of the picture.

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correct course and lesson.

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### FIRST DAY

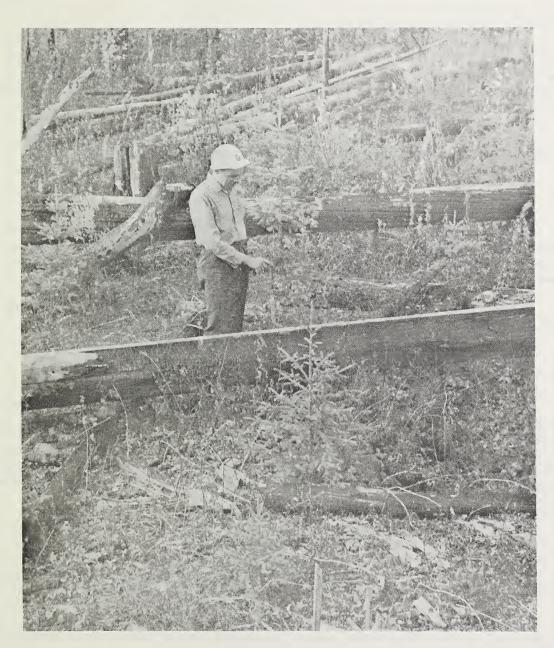


Figure 55

Courtesy: British Columbia Forest

Service

Photographer: P. Robin

What disaster occurred in this forest area?

# Conserving the Forests

Forest Fires

FIRE! This is a word which is of great importance to the forestry department and the forest industry. Every year fires burn many thousands of acres of forests. To the company, a fire means a loss of prime timber and money. To the forest area, it is a loss of wildlife, vegetation, watershed and recreation area.

When a fire burns through an area the damage is often immeasurable. Some of the damages caused by a forest fire are:

# 1. Damage to the Trees

The company can easily estimate the value of felled and bucked timber lost in a fire. Damage to the standing timber is more difficult to estimate, because parts of the damaged trees may be used. Not until the tree is cut and sent to the mill does the company know the extent of the damage.

A fire also destroys young seedlings, and this will set back the growth of a new forest for many years.

# 2. Damage to the Soil

The soil of the forest contains decayed leaves and other vegetation which makes the soil fertile. This decayed vegetative matter (called humus) is very important to the forest because it holds many times its own weight in water and plays a very important part in regulating stream-flow. When this humus is destroyed by fire, the run-off water may become very rapid and much of the surface soil may wash away. This erosion may make it difficult to establish another forest.

# 3. Damage to Natural Beauty and Wildlife

The forest, once a beautiful sight, now is nothing more than ashes and blackened snags and stumps.

Wildlife suffers as a result of a forest fire. Many animals are burnt to death while others lose their natural protective habitat (the natural dwelling place) and sources of food.

Let us study some animals to decide how a forest fire would affect them.

## 1. Chipmunk



Figure 56

In the fall of the year the chipmunk scampers along the ground gathering nuts, fruits, buds and seeds. While hunting for his food he must keep his eyes open for his enemies, such as, hawks, owls, weasels, cats, dogs and sometimes humans. His main protection from his enemies are his stripes, which make him less conspicuous. When he is on the ground the stripes blend with the general shape and color of the grass and underbrush. If he remains still he is invisible to his enemies.

Once he has obtained his food he puts it in his cheek pouches. He then scurries home to his burrow which is located on a dry hillside. The opening or door to his burrow is camouflaged by a growth of tall grass. Inside his burrow is a storage area for his food and a nest for his young.

2. Owl



For his habitat or dwelling place the owl likes a heavily wooded area. He chooses this area for the following reasons:

- 1. Protection for himself. The owl's plumage, which is reddish brown and resembles a branch of a tree or part of the bark, protects him from prying eyes during the daytime when he is sleeping.
- 2. Protection for his young. The female owl lays her eggs in the hollow of a tree. The darkness will hide her eggs from their enemies.

Figure 57

3. Obtaining food. The owl hunts at night for his food. The owl's food consists of insects (moths, grasshoppers and beetles), mice and small birds. All of the above are plentiful in a forest environment.

1.	Answer yes or no, to indicate how the owl would be affected by a forest fire.
	(a) Would he lose his home?
	(b) Would he lose his source of food?
	(c) Would the owl's eggs be destroyed?
	(d) Would the owl be able to survive a forest fire?
2.	Let us assume that the chipmunk survived the forest fire. How would his natural habitat have changed?
	(a) Would he be conspicuous to his enemies?
	(b) Would he lose his source of food?
	(c) Would his home be destroyed?
	(d) Would the chipmunk have to find a new area to live in?
3.	On the lines below explain why a forest fire is very costly.

Check your work with the answers at the end of Lesson 27.

#### SECOND DAY

#### Fire Control

## 1. Calculating the Fire Risk

Both the logging company and the provincial government hire men to work as fire wardens. It is the warden's job to determine the fire risk for the area.

Most fires occur in the summer months when there is a combination of high temperatures and a dry atmosphere. When this type of weather lasts for a prolonged period, the forest growth and humus will become very dry.

By reading instruments and checking the forest floor the warden can determine the fire risk. Everyday he checks for the following information.

- 1. the temperature
- 2. the humidity (the amount of moisture in the air)
- 3. amount of moisture on the forest floor (The moisture is stored in the humus.)
- 4. wind velocity (speed of the wind)

Here is an example of a fire warden's findings.

- 1. The day's temperature is 27°C.
- 2. The relative humidity is 30%. (This indicates that the atmosphere is very dry.)
- 3. The forest floor crunches when you walk on it. (This is an indication that the humus is very dry.)
- 4. The wind is travelling at 16 km per hour.

The conditions stated in 1, 2, 3, and 4 have now been present for 2 weeks.

What type of fire rating would the warden give? (Circle the best answer.)

Nil Low Moderate High Extreme

I hope your answer was extreme.

The fire warden now posts the fire rating for everyone in the area to see.

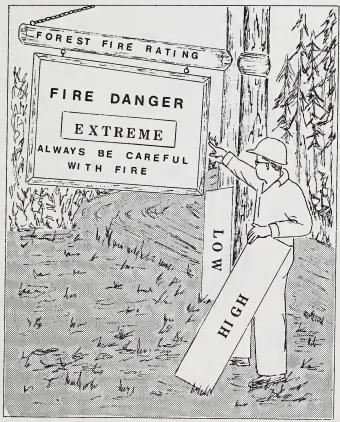


Figure 58

Forest Fire Hazard Rating

The loggers watch this rating board very carefully. When the rating is extreme, often the forests are closed to the loggers as well as to the public.

## 2. Fire Detection



Figure 59

Lookout Tower

Courtesy: British Columbia Forest

Service

Photographer: P. Robin

Fires are detected or discovered by using the following methods.

Lookout Tower

The observer in the tower spots the fire, takes a sight on it, locates the fire on the map, and then radios the location of the fire to the nearest forestry office.

Aeroplanes

Aeroplanes are often used to spot forest fires. The crew sends in the location of the fire on short-wave radios.

Road patrols

Patrols are maintained on all important roads during a high fire risk.

The Public

1.

Often people who are taking a drive, or are camping will notice a blaze and report the fire to the local forest ranger.

## SEND FOR CORRECTION

hy is early de	etection of a for	est fire important	t?	

# 3. Fire Fighting



Figure 60

Water Bomber

Courtesy: British Columbia Forest

Service

Photographer: B. Davies

## 1. Fire Control Using Water

Water is used to cool the fire so that fire crews can safely fight the fire.

Water is provided in the following ways:

A Portable Pump- The pump is placed in a creek, lake, river or water-hole.

Tanker Truck- The truck transports water to the fire.

Aeroplanes (Water bombers) - This is the most commonly used method. The water is scooped up during the take-off over water and then released over the fire.

### 2. Fire Control Without Water

If water is not available shovel crews and bull dozers are used to extinguish the fire. There are three main methods of attacking a fire when water is not available.

### The Direct Attack

The flames on the edge of the advancing fire are beaten out with a shovel and the hot ashes are scraped back into the burning area. If dirt is used to smother the fire, the fighter must be careful not to bury anything which might continue to smolder because the blaze might start anew.

#### Semi-direct Attack

This method is used when the fire is too fierce for the use of shovels only. In the semi-direct attack a bull dozer or a shovel crew make a fire line (a path several feet wide cleared down to the dirt) ahead of the advancing fire. The heavy materials are thrown into the woods, and the litter is gathered up and burned on the side towards the advancing fire. The burning litter deprives the main fire of its fuel. Without the proper amount of fuel the main fire tends to die down. Then shovel crews use the direct attack method to control the fire.

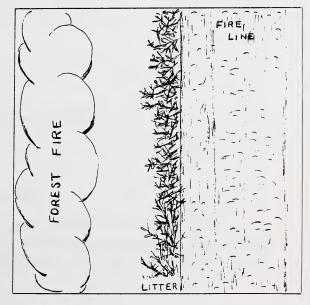


Figure 61

### Indirect Attack

This method is used in fighting very severe fires. When using this metho the foreman in charge must use natural conditions. He looks for rock bluffs, streams, lakes, and joins them with fire lines. A backfire is set on the edge of the fire line. The fires, because of the natural draft they make, tend to draw together and burn each other out.

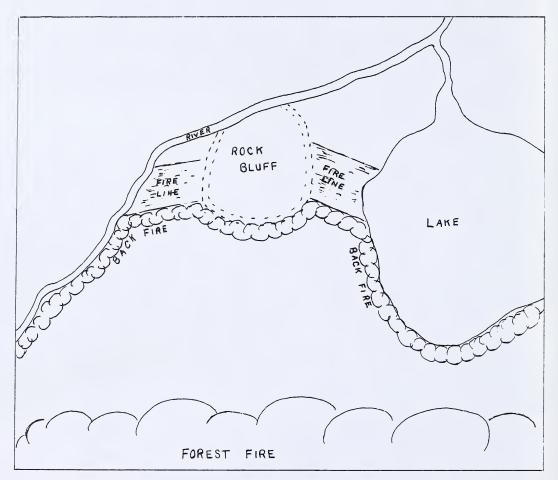


Figure 62

## Mopping Up

A fire is never considered completely dead until there is not a single spark left. Even after a fire is out, watchmen patrol the area for several days to make sure that it is completely out.

When a seand towns	evere fores people are	t fire is asked to	burning in a	an area, he fire.	often	tourists,	travell
Is this a	good idea?						
	good idea:						
	our answer		nes below.				
			nes below.				
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#### THIRD DAY

### Managing the Forests

The men in the Forest Service started to take a close look at forestry operations in the province of British Columbia. They were worried because the young trees could not grow quickly enough to replace the mature trees which were being cut at a fantastic rate.

In 1930 the government of British Columbia predicted that in 100 years, at the present rate of cutting, none of the important trees would be left.

To combat this danger, the Forest Service developed new policies governing the management, harvesting (cutting) and reforestation (replanting) of the timber resources. They proposed a program of <u>sustained yield</u> cutting. This means that the amount of wood cut in any one year must not be greater than the amount of new wood growth in that same year.

The Mackenzie logging operation takes place in the Finlay Public Sustained Yield Unit, which comprises about 4 900 000 hectares. (Refer to the map in Lesson 24, page 1.)

## Tree Farming

Tree Farm Licenses are issued, by the government, to responsible companies. The license usually is a 21-year lease of government land. The company that receives the lease, agrees to manage and protect the area as outlined by the government. The government wants the company to farm the timber in such a way as to ensure a continuous crop.

If the license holder does not fulfil the requirements the government may cancel the license.

Below are some examples stating how a company might conduct a logging operation. Read the examples. Then decide whether the company would have its license renewed or cancelled for these practices. Circle the answer which you have chosen.

1. The logging company discussed its cutting operation with the government.

renewed cancelled

2. The forest company has its own research laboratories in which they study growth and development of the trees.

renewed cancelled

3. The logging company failed to submit a cutting plan to the provincial government.

renewed

cancelled

4. After the area was logged, the company did not clean up the debris to the satisfaction of the inspectors.

renewed

cancelled

5. The forest area, which has been leased for 5 years to the logging company, has become insect infested.

renewed

cancelled

Check your answers with those at the end of Lesson 27.

#### ART

## Melted Crayon Painting

NOTE TO SUPERVISOR - This lesson includes the use of a candle and it is suggested that every precaution be observed.

Materials:

art paper

crayons with paper wrapping removed

candle

Hold the crayon briefly over the flame of the candle until it softens, then press, drip, or drag the softened crayon onto the paper. Try different colors melted on top of one another.

For your lesson this week I would like you to paint a picture with your crayons. If you do not have a candle to melt your crayons, then you may use your crayons as you usually do.

What season is it now? Paint a picture that shows the colors you see when you look out of your window.

What color are the trees now?

Is the sky blue today?









#### FOURTH DAY

### A Continuous Crop

The company must make sure that the land remains productive. This they do by planting a new crop each year. Unlike a farm crop, a tree crop takes 80 to 90 years to mature so the company must make long range plans.

The planting or reforestation can be done in two ways.

## 1. Patch Logging

When this method is used logging is done in such a way as to leave trees surrounding the logged area. This enables natural reforestation to take place. The trees produce seeds which ripen and are scattered by the wind. The seeds germinate (begin to develop) where they fall and a new tree begins to grow. Usually it takes five to ten years for a logged-over area to reseed by means of natural methods.

## 2. Use of Seedlings

The use of seedlings is a type of artificial reforestation. In this type of reforestation the seed is collected and grown in nurseries to provide trees for the planting area. When the seedling is two years old it is replanted.



Figure 63

A Tree Nursery



Figure 64

A Two-Year-Old Seedling

# SEND FOR CORRECTION

	k at the seedling in Figure 64. Pretend that you are planting t dling today.	he
How	old will you be when this seedling is a large tree?	
Con the	npare natural reforestation and the planting of seedlings. How oplanting of seedlings speed up the growing time of the forest?	do
_		

### FIFTH DAY

We have now finished Lumbering in British Columbia . Today I will ask you to answer several questions. Your answers will reveal your opinions and knowledge of the lumbering industry.

## SEND FOR CORRECTION

1. Read the statements below. Then indicate, with a  $(\checkmark)$  check mark, whether you Strongly Agree, Agree, are Undecided, Disagree or Strongly Disagree.

		SA	A	U	D	SD
1.	A small town like Mackenzie would be a better place to live than a city.					
2,	The logging industry is very important to the town of Mackenzie.					
3•	Logging operations should be inspected by the government.					
4.	Wilderness areas should not be developed for commercial purposes.					
5.	In the past, logging companies have not paid enough attention to reforestation.					
6.	I would like to be a logger.					
7.	Too much money and time are spent on fire control.					

 the questions ar	ad support yo	ur answer.	

2. Decide which natural factors and which man-made factors led to the

	under the correct h	J
Natural Factor	S	Man-made Factors
Explain the slogan.		
	Trees For Tor	norrow

### ANSWERS TO LESSON 27

### Page 5

- 1. (a) Yes
  - (b) Yes
  - (c) Yes
  - (d) Yes if he flew away.
- 2. (a) Yes
  - (b) Yes
  - (c) Yes, if his home was above ground. If his home was in a burrow, it might not be destroyed.
  - (d) Yes
- 3. It is costly because it destroys wildlife. It also destroys trees which could be marketed or logged and the jobs which depend on these trees. It also costs money to fight the fire.

## Page 9

The sooner a forest fire is spotted, the easier it is to put it out. It is also much cheaper in terms of men and machinery needed and less timber is lost.

### Page 13

- 1. There are few roads in the area so an airplane would be very effective at getting to the fire quickly. Lots of water is available for the water bomber in Williston Lake so that helps, too.
- 2. Yes. More help may put the fire out more quickly.

No. It is a dangerous job and should be done only by trained people.

## Page 14

- 1. renewed
- cancelled
- 5. cancelled

- 2. renewed
- 4. cancelled



### LESSON RECORD FORM

## 0503 Social Studies

Unit III Revised 88/01

Signature

Parent's or Supervisor's Comments:

For School Use Only

Assigned

Teacher: _____

Assignment

Code: _____

Graded by: _____

Lesson Grading

Social Studies:

Art:

correct course and lesson.

Neatness:

Date Lesson Received:

Lesson Recorded:_____

## For Student Use

(If label is missing or incorrect)

File Number:

Lesson Number: _____

Date Lesson Submitted:

## Grading Scale:

- A Very Satisfactory
- B Satisfactory
- C Needs Attention
- D Unsatisfactory

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Apply Lesson Label Here

Tea	che	r's	Con	nmer	ıts:

Signature

#### ALBERTA CORRESPONDENCE SCHOOL

#### MAILING INSTRUCTIONS FOR CORRESPONDENCE LESSONS

### 1. BEFORE MAILING YOUR LESSONS, PLEASE SEE THAT:

- (1) All pages are numbered and in order, and no paper clips or staples are used.
- (2) All exercises are completed. If not, explain why.
- (3) Your work has been re-read to ensure accuracy in spelling and lesson details.
- [4] The Lesson Record Form is filled out and the correct lesson label is attached.
- (5) This mailing sheet is placed on the lesson.

### 2. POSTAGE REGULATIONS

Do not enclose letters with lessons.

Send all letters in a separate envelope.

#### 3. POSTAGE RATES

First Class

Take your lesson to the Post Office and have it weighed. Attach sufficient postage and a green first-class sticker to the front of the envelope, and seal the envelope. Correspondence lessons will travel faster if first-class postage is used.

Try to mail each lesson as soon as it has been completed.

When you register for correspondence courses, you are expected to send lessons for correction regularly. Avoid sending more than two or three lessons in one subject at the same time.

#### FIRST DAY

#### Nova Scotia is Discovered

In your Social Studies you have been studying about the farming industry in Alberta, and the lumber industry in British Columbia. In this unit you will be learning about some of the industries in Nova Scotia. Nova Scotia is a province that is located in eastern Canada. It is often referred to as a maritime (near to the sea) or Atlantic province.

The province of Nova Scotia, together with Cape: Breton Island, is 593 km long and only 80 to 120 km wide. It is interesting to note that no part of the province is more than 56 km from the sea.



Recent discoveries have proven that the Norsemen were the first explorers to visit and probably settle in Nova Scotia. Researchers in Nova Scotia have unearthed early sod long houses, utensils, and tools, like the kind used by the early Norsemen. The researchers believe that the Norsemen or the Vikings first settled in Nova Scotia 900 years ago. These early Norsemen named this land Markland. It is not known why these first early settlements did not survive. Some researchers think that the cool, wet Nova Scotia climate may have convinced the Vikings to return to Norway. Perhaps the Canadian Indians frightened these early settlers away.

It was many years later before any other explorers reached the New World.

In 1497, John Cabot sailed from England in search of a North West Passage to the Spice Islands of the East. He did not find the North West Passage,



Figure 1 Cabot raising flag on Cape Breton Island

but landed on Cape Breton Island, a part of Nova Scotia. Here on Cape Breton Island, Cabot raised the English flag and claimed Nova Scotia as a British possession.

Cabot did not find a new way to the Spice Islands, and he did not find any spices in this new land. He did find something of greater value. He had discovered the vast fishing grounds, the Grand Banks of Newfoundland. On his return to England, Cabot told the people about the tons of fish which could be scooped, by the basketful, from the sea.

The European fishermen were very interested in this fishing area and set sail for this new land. Often while fishing in the area near Nova Scotia, these European fishermen stopped in the harbours to take refuge from the storms at sea.

It wasn't until 1604 that a French settlement was started by Samuel Champlain, at Port Royal, in Nova Scotia. This first settlement faced many hardships. Cold, wet winters, diseases, unfriendly Indians, and lack of food were some of the hardships faced by these early settlers. To make this first settlement a success, Champlain organized the Order of Good Time. (This was probably the first social club in America and is still in existence in Nova Scotia today.) The Order of Good Time was a plan to keep the settlers happy and cheerful. To do this a different man went out hunting and fishing each day so that there was always plenty of food. Every evening the settlers met in a large dining hall where the food was served. The food, songs and music helped to keep the settlers happy.



Figure 2 The Order of Good Time

The settlers in this first colony farmed and fished for a living. However, an extremely cold winter and illness forced many of the colonists to return to France.

Several years later, French colonists were again brought out to Port Royal in Acadia (Nova Scotia). (A French explorer had named Nova Scotia, Acadia, meaning peace and beauty.) This new colony also failed. It is believed that English pirates burned down the settlement.

Even though French and German, as well as English settlers came to Nova Scotia, England seemed to gain more and more control of this new land. Then in 1776, when the New England states decided to break away from Britain and become the United States of America, many New England people were very unhappy about this. They did not want to fight against Britain. They wanted to be loyal to Britain and stay under British rule.

England wanted to encourage these settlers to settle in Canada. As a result, the British government promised the people of New England farms, farm tools, and food if they settled in Canada.

As Nova Scotia was the closest to the New England states, many of the settlers chose to settle there. Because these New England people remained loyal to Britain, they were called the United Empire Loyalists.

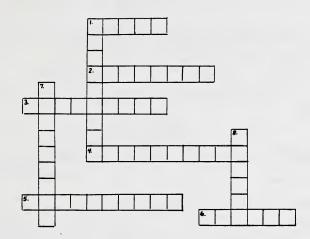


Map 2 Empire Loyalists Leave the New England Colonies

Nova Scotia's population was greatly increased with the coming of the Loyalists. These new settlers helped to open up new farm areas.

In 1867, the year of Confederation, Nova Scotia became a province of Canada.

Complete this puzzle to help you review your social studies reading for today.



### ACROSS

- 1. surname of the man who planted the British flag on Cape Breton Island
- 2. a word that means close to the sea
- the people who were loyal to Britain and moved from New England to Nova Scotia
- 4. a maritime province of Canada
- 5. the place where John Cabot planted the British flag in 1497
- 6. Nova Scotia's name in the early days

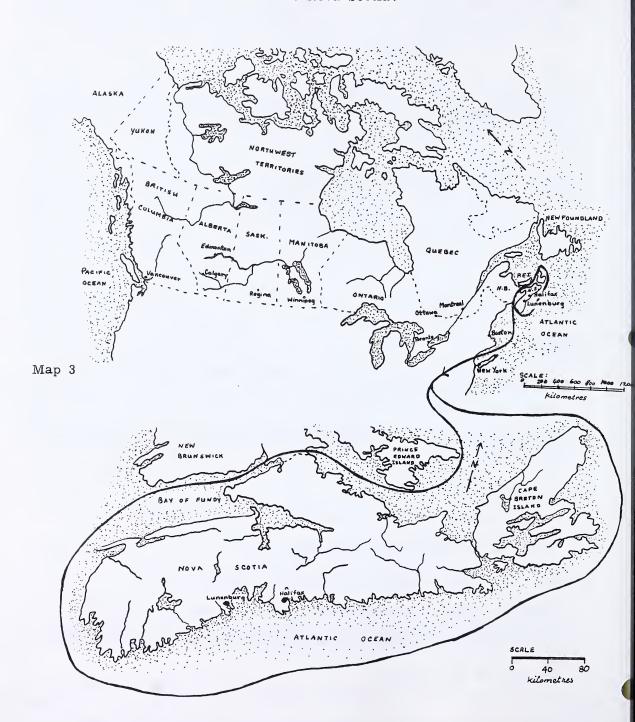
#### DOWN

- 1. surname of the man who started the first settlement in Nova Scotia
- 7. the place where Champlain started the first settlement in Nova Scotia
- 8. the name of our country

Check your work with the answers at the end of this week's lesson.

## SECOND DAY

# Where is Nova Scotia?



Name the three provinces closest to Nova Scotia.  Name the ocean that is near Newfoundland, Prince Edward Island and New Brunswick.  Name one Canadian city which is close to Nova Scotia.  (a)  Name an American city which is close to Nova Scotia.  (b)  Use your dictionary to find the meanings of the following words.  prairie  interior  maritime  Would you say that Nova Scotia is a prairie, maritime, or interior province?  Support your answer.	Study the	map of Canada - Map 3.
Name the ocean that is near Newfoundland, Prince Edward Island and New Brunswick.  Name one Canadian city which is close to Nova Scotia.  (a)	Find Nova	Scotia on the map. Answer the following questions.
Name one Canadian city which is close to Nova Scotia.  (a)	Name the	three provinces closest to Nova Scotia.
Name one Canadian city which is close to Nova Scotia.  (a)		
Name one Canadian city which is close to Nova Scotia.  (a)		
Name an American city which is close to Nova Scotia.  (b)  Use your dictionary to find the meanings of the following words.  prairie  interior  maritime  Would you say that Nova Scotia is a prairie, maritime, or interior province?		
Name an American city which is close to Nova Scotia.  (b)		
Use your dictionary to find the meanings of the following words.  prairie	Name an	American city which is close to Nova Scotia.
maritime  Would you say that Nova Scotia is a prairie, maritime, or interior province?	Use your	dictionary to find the meanings of the following words.
maritime  Would you say that Nova Scotia is a prairie, maritime, or interior province?	prairie _	
Would you say that Nova Scotia is a prairie, maritime, or interior province?	interior _	
province?	_ maritime	
Support your answer.		say that Nova Scotia is a prairie, maritime, or interior
Support your answer.		
	Support yo	our answer.

Nam	e two provinces that are in the interior of Canada.
-	
Use	the scale on the map to find the short distance from Nova Scotia to
t he:	the scale on the map to find the short distance from Nova Scotia to
t he:	the scale on the map to find the short distance from Nova Scotia to
t he: (a)	
the: (a) (b)	British Columbia-Alberta border

From your map study today you have seen that Nova Scotia has a sea coastline. The Atlantic Ocean surrounds almost all of Nova Scotia. If you used the map scale accurately, you would see that even though Nova Scotia is a Canadian province, it is closer to the United States border than it is to many Canadian provinces.

To Do:

Discuss this statement with your supervisor.

The people from Nova Scotia have more in common with the people of the Northeastern United States than with people from Alberta and Saskatchewan.

Check your answers on pages 7, 8 with those given at the end of Lesson 28.

#### THIRD DAY

### The Coastline of Nova Scotia

From yesterday's study you learned that Nova Scotia is almost entirely surrounded by the Atlantic Ocean. To help you with the exercises in today's lesson, study the following words and their meanings.

Peninsula - land that is nearly surrounded by water

Cape - land that juts out into water like a peninsula, or like a projecting point

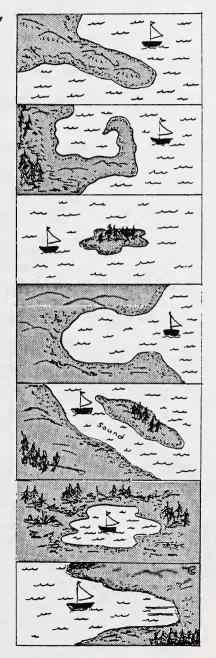
Island - land that is entirely surrounded by water

Bay - an inlet of the sea, often mostly surrounded by land

Sound - a stretch of water that separates an island from the mainland

Lake - a body of water surrounded by land

Harbour - a partly sheltered portion of a sea or lake which serves as a shelter for ships and boats



Cove - a small sheltered bay - an inlet on the shore Coast - land along the sea anchor - a shaped piece of iron attached to a chain or rope and used to hold a ship in place BRUNSWICK MEM Cities, Towns

Map 5

Wh	at did you notice about the word list in today's lesson?
_	
Stu	dy Map 5. Name the following.
a I	eninsula
_	
	ove
a c	
a (	
a. (	
	arbour
	arbour
	arbour
a 1	arbour

4.	Look at the map of Nova Scotia on page 10. Draw an arrow to another spot where you think you would find a:
	harbour
	cove
5.	Underline the correct answer.
	Nova Scotia's coastline is regular, irregular.
6.	From what you have learned, tell in a sentence what kind of work you think most Nova Scotians do.

### FOURTH DAY

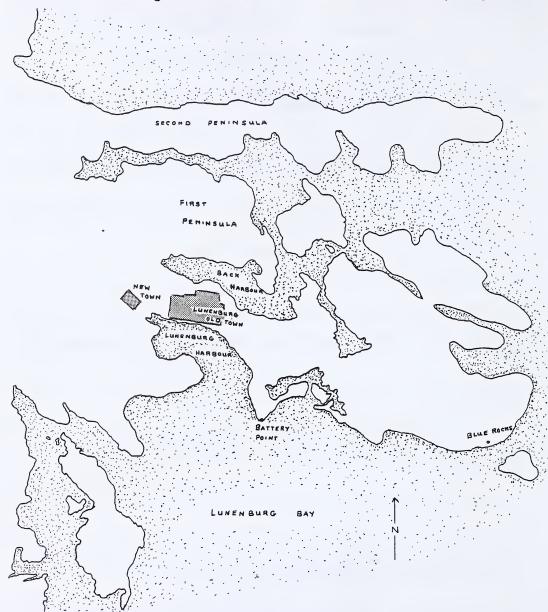
Lunenburg - A Town in Nova Scotia

A Town with a Front and Back Harbour

Use Maps 3 and 4, on page 6 to locate Lunenburg. Did you find that Lunenburg is a place in Nova Scotia?

	Boston
	Toronto
	Edmonton
	Vancouver
	the scale on Map 4 to find the distance between Lunenburg and fax.
	the scale on Map 3 to find the distance between Lunenburg and nonton.
Edm ————————————————————————————————————	
Edm ——— Stud Give	y the map of Canada, Map 3, to find the location of your home.
Stud Give	y the map of Canada, Map 3, to find the location of your home.

Review the words given in this week's lesson. Then study Map 6.



Map 6 Town of Lunenburg with Front and Back Harbour

With your finger trace the coastline of the Lunenburg area.

Lunenbur	•	
Sometime	s the Lunenburg area is described as a 'drowned coastlir	ıe'.
Why do y	ou think this is a good description of Lunenburg's coastli	ne
harbours,	died Map 6 closely, you would see that Lunenburg has to a Front Harbour and a Back Harbour. Would this be a	
advantage	or disadvantage?	
Tell why.		
Tell why.	or disadvantage?	
Tell why.	or disadvantage?  Phour is most open to the sea?  advantage or disadvantage?	
Tell why.  Which has Is this ar	or disadvantage?  Phour is most open to the sea?  advantage or disadvantage?	

5.		shows th Tell wh					
	-			· · · · · · · · · · · · · · · · · · ·			 
			 	-		 	 
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### FIFTH DAY

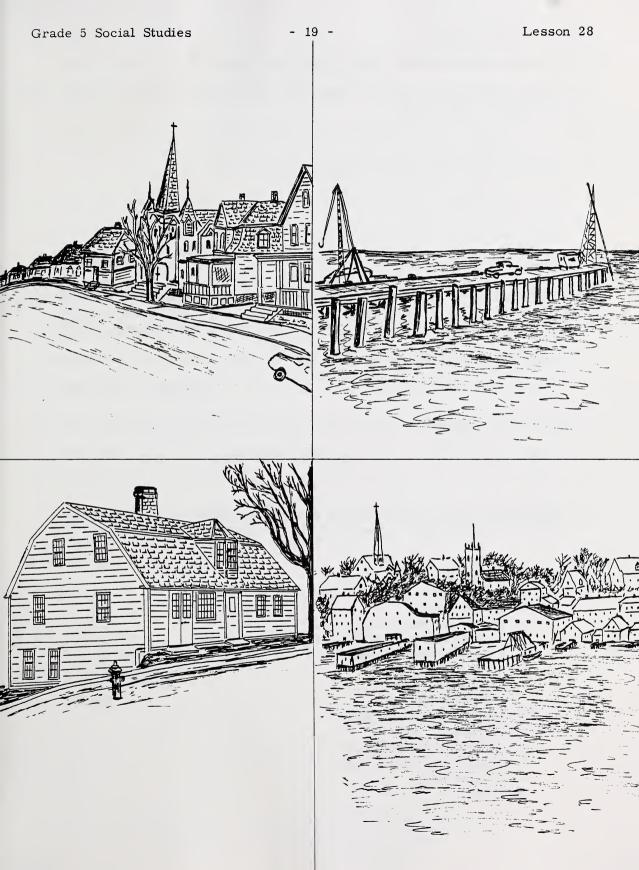
### What is a Town?

Many of you either live in town or have visited a small town.

A town is a place smaller than a city but larger than a village. It is usually a large place where people live and make their living. You can buy groceries, clothes, household needs, cars, books or toys in a town. You can go to a movie, see a hockey game, buy a doughnut at the bake shop, visit a sick friend in hospital, do research in the school library or just watch the volunteer firemen do a practice firefighting drill.

To survive, a town must organize its people to supply the services needed. For example, a town needs stores to sell groceries and clothes to the people. In return, the town needs people to run the stores and make things for sale.





Check (N) some of the services you would expect to find in a seaport town like Lunenburg. (See the pictures in the Fifth Day to help you.  ( ) elementary school ( ) hospital ( ) churches ( ) playgrounds ( ) boat houses ( ) stockyard for the sale of pigs and cattle ( ) a yacht shop ( ) a bus depot ( ) a train station ( ) grocery stores ( ) repair shop for ships ( ) hotels ( ) fish processing plant ( ) large grain elevators		
<pre>( ) elementary school ( ) hospital ( ) churches ( ) playgrounds ( ) boat houses ( ) stockyard for the sale of pigs and cattle ( ) a yacht shop ( ) a bus depot ( ) a train station ( ) grocery stores ( ) repair shop for ships ( ) hotels ( ) fish processing plant ( ) large grain elevators</pre>	List t	he services that are offered in your town.
<pre>( ) elementary school ( ) hospital ( ) churches ( ) playgrounds ( ) boat houses ( ) stockyard for the sale of pigs and cattle ( ) a yacht shop ( ) a bus depot ( ) a train station ( ) grocery stores ( ) repair shop for ships ( ) hotels ( ) fish processing plant ( ) large grain elevators</pre>		
<pre>( ) elementary school ( ) hospital ( ) churches ( ) playgrounds ( ) boat houses ( ) stockyard for the sale of pigs and cattle ( ) a yacht shop ( ) a bus depot ( ) a train station ( ) grocery stores ( ) repair shop for ships ( ) hotels ( ) fish processing plant ( ) large grain elevators</pre>	,	
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<pre>( ) hospital ( ) churches ( ) playgrounds ( ) boat houses ( ) stockyard for the sale of pigs and cattle ( ) a yacht shop ( ) a bus depot ( ) a train station ( ) grocery stores ( ) repair shop for ships ( ) hotels ( ) fish processing plant ( ) large grain elevators</pre>	Check town 1	$(\ensuremath{N})$ some of the services you would expect to find in a seaport like Lunenburg. (See the pictures in the Fifth Day to help you.)
<pre>( ) churches ( ) playgrounds ( ) boat houses ( ) stockyard for the sale of pigs and cattle ( ) a yacht shop ( ) a bus depot ( ) a train station ( ) grocery stores ( ) repair shop for ships ( ) hotels ( ) fish processing plant ( ) large grain elevators</pre>	(	Valama anta min anta a 1
<ul> <li>( ) playgrounds</li> <li>( ) boat houses</li> <li>( ) stockyard for the sale of pigs and cattle</li> <li>( ) a yacht shop</li> <li>( ) a bus depot</li> <li>( ) a train station</li> <li>( ) grocery stores</li> <li>( ) repair shop for ships</li> <li>( ) hotels</li> <li>( ) fish processing plant</li> <li>( ) large grain elevators</li> </ul>		
<ul> <li>( ) boat houses</li> <li>( ) stockyard for the sale of pigs and cattle</li> <li>( ) a yacht shop</li> <li>( ) a bus depot</li> <li>( ) a train station</li> <li>( ) grocery stores</li> <li>( ) repair shop for ships</li> <li>( ) hotels</li> <li>( ) fish processing plant</li> <li>( ) large grain elevators</li> </ul>	(	) hospital
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		) hospital ) churches ) playgrounds ) boat houses ) stockyard for the sale of pigs and cattle ) a yacht shop ) a bus depot ) a train station ) grocery stores ) repair shop for ships ) hotels ) fish processing plant

n Alberta,	farmers look to	the soil f	or their liv	ring, miner	rs look to
cock, oilme	farmers look to n look to the ro ourgers look for	cky layers			
rock, oilme	n look to the ro	cky layers			
rock, oilme think Lunenl	n look to the ro	cky layers			
rock, oilme	n look to the ro	cky layers			
rock, oilme think Lunenl	n look to the ro	cky layers			

Answers to puzzle, page 5.

### Across

- 1. CABOT
- 2. MARITIME
- 3. LOYALISTS
- 4. NOVA SCOTIA
- 5. CAPE BRETON
- 6. ACADIA

## Down

- 1. CHAMPLAIN
- 7. PORT ROYAL
- 8. CANADA

### ANSWERS TO LESSON 28

# Page 7

- Prince Edward Island New Brunswick Newfoundland
- 2. Atlantic Ocean
- (a) Montreal
  - (b) Boston
- prairie a large area of level or rolling land with grass but very few trees.

interior - the part of a region or country away from the coast or border.

maritime - on or near the sea.

 It is a maritime province. It is almost entirely surrounded by sea.

# Page 8

- 6. Newfoundland, New Brunswick, Prince Edward Island
- 7. Alberta, Saskatchewan, Manitoba, Ontario
- 8. (a) about 4000 km
  - (b) about 4600 km
  - (c) about 2600 km
  - (d) about 450 km

### Page 13

- Boston north
   Toronto north
   Edmonton south
   Vancouver north
- 2. It is about 100 km
- 3. it is about 3800 km
- 4. (a), (b) Check these with your supervisor.

#### LESSON RECORD FORM

#### 0503 Social Studies

Unit III Revised 88/01

Signature

Parent's or Supervisor's Comments:

For School Use Only

Assigned

Teacher: _____

Assignment

Code: _____

Graded by: _____

Lesson Grading

Social Studies: _____

Art:

Please verify that preprinted label if for

correct course and lesson.

Neatness:

Date Lesson Received:

Lesson Recorded:____

Signature

### For Student Use

(If label is missing or incorrect)

File Number:

Lesson Number: _____

Date Lesson Submitted:

## Grading Scale:

- A Very Satisfactory
- B Satisfactory
- C Needs Attention
- D Unsatisfactory

Name
Address
Postal Coda

Apply Lesson Label Here

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#### ALBERTA CORRESPONDENCE SCHOOL

#### MAILING INSTRUCTIONS FOR CORRESPONDENCE LESSONS

### 1. BEFORE MAILING YOUR LESSONS, PLEASE SEE THAT:

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- (3) Your work has been re-read to ensure accuracy in spelling and lesson details.
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- (5) This mailing sheet is placed on the lesson.

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#### FIRST DAY

# The Beginning of Lunenburg

When John Cabot returned to England with stories about the tons of fish to be found in the waters surrounding the New World, many people were anxious to sail to this new found land. Fishermen from England and other European countries sailed to fish in these waters.



During stormy weather, the fishermen anchored their fishing vessels in many of the coves and harbours along the coast of Nova Scotia. The Front Harbour at Lunenburg was especially suited for the anchoring of large fishing boats as it was well protected by jutting land. Back Harbour was not quite as suited to anchor large ships as it was difficult to sail the ships in and around the islands in front of it.

Map 1 Lunenburg

In those early days, the European sailors and fishermen who stopped at the Lunenburg harbour named the site Merligash, (Malliggeak) an Indian word meaning "milky bay". This is thought to refer to the condition of the bay area in stormy weather. The shore area around most of Nova Scotia and especially Lunenburg, where the uplands of the interior mainland meet the sea, is an excellent example of a drowned coast. The land in this area had been depressed during the great ice ages. As a result the coastline around Lunenburg is very irregular and has many inlets and coves. The hills along the coast were formed by deposits left by the glaciers. These hills provide good farmland in the Lunenburg area. Then, because the Lunenburg area was on a large Bay and its harbour well protected by Battery Point, it was a good location for settlement.

In 1753, the site of Merligash was recognized as a settlement area. Settlers from England, France, Switzerland and Germany settled in this area. As the majority of the settlers came from Lunenburg, Germany, the town was named Lunenburg.

Captain Morris, a surveyor, helped plan the layout of "Old Town". While surveying, he noticed that a small picket across the Peninsula would enclose 2400 hectares, and some 120 to 160 hectares of scrubby land gave a basis for settlement. This was an ideal site for a new town.

The town of Lunenburg was built on a hillside and down to the waterfront. The steep hill on which the town was located had an important defence point known today as Blockhouse Hill. On Blockhouse Hill, at the east end of the settlement, a fort was built to serve as a lookout. A palisade was built from the Front to Back Harbour across the neck of the peninsula. By building the wooden palisade across the peninsula, Lunenburg became a walled town. It was protected from land attack. This walled palisade was not needed once greater numbers of settlers settled further out on the good land around the town.

With the settlement growing, the town planners laid out street plans which ran horizontally along the contours of the hillside, more or less parallel to the waterfront of the Front Harbour. The cross-streets ran directly up the steep slopes of the hill. Land in the cleared areas was divided into lots large enough to suit the families. Each settler received a town lot, a garden lot, a 120 hectare wood lot; and was given 200 metres of boards, 500 bricks, and nails. The King's Wharf on the shore supplied the initial wants and needs for the settlers. In 1759, the first road was carved through the woods to Halifax. With the building of the road, communication and trade was opened up between Lunenburg and Halifax.

The early settlers who settled in Lunenburg were farmers, but they soon learned that it was easier to catch fish along the shores, than to farm on such small farm lots. Many of the farmers became part-time fishermen with the women staying home to do the farm work. When the fishing boats sailed into the harbour, everyone helped unload the fish and set it on frames to dry.

To these early settlers, Lunenburg was an ideal place to live. It was close to the sea, had a beautiful Front Harbour, well-protected from the stormy seas. It had a Back Harbour that wasn't too navigable, but was suited for swimming and boating. Living so near to the sea, it was natural for these settlers to depend on the sea for a living.

As interest in fishing developed, a boat building industry was started and a fishing fleet was built. The town grew and prospered and the fishermen were soon trading in fish all over the world. The Lunenburg fishermen fished during the spring and summer, and then sailed to Europe and other parts of the world, their ships loaded with lumber and cured fish. On their return trip, the boats usually brought back sugar, salt, fruit, molasses and rum.

# SECOND DAY

SEND FOR CORRECTION

Is Lunenburg the Same as Your Town?

	different from your town? In what way?
Mos	st towns have four main areas.
	Residential - made up of homes where people live
	Commercial - stores, garages, theatres, hotels, motels
	Industrial - factories, warehouses
	Institutional - churches, schools, post office, fire hall, hospitals, police stations, community centers, skating rinks, historical site museums
1.	Which of the above areas does your town have?
2.	Which of these areas does it not have?





SEND	FOR.	CORR	$\mathbf{E}$	CTI	ΛN	J

1.	What are the three systems of transportation in Lunenburg?
	What are the two main residential sections of Lunenburg?
•	Where is the main industrial area of Lunenburg located?
•	Why do you think it was located in this area?
	Why is it better to have industrial areas away from residential areas?

In what way New Town?		spacing	of the	streets	differ	ent in	the Old	Town
4								
							•	-
Explain wh	y you thi	nk this	happen	ed.				
-1	, ,		• •					
					<del></del>			
Study caref Choose five	names	names o	of stre	ets in tl explain	ne town	n of Li	ınenburş ık they	g on Ma
Choose five	names	names of stree	of stre	ets in tl explain	ne town	n of Li	unenburg nk they	g on M: were g
Choose five	names	names of stree	of stre	ets in tl explain	ne town	n of Li	unenburg nk they	g on Ma
Choose five	names	names of stree	of stre	ets in tl explain	ne town	n of Li	unenburg ik they	g on Ma

### THIRD DAY

## An Aerial View of Lunenburg

The map in today's lesson is a topographical map showing an aerial picture of Lunenburg. A topographical map shows:

lake regions streams hills forests farms valleys roads houses and streets.

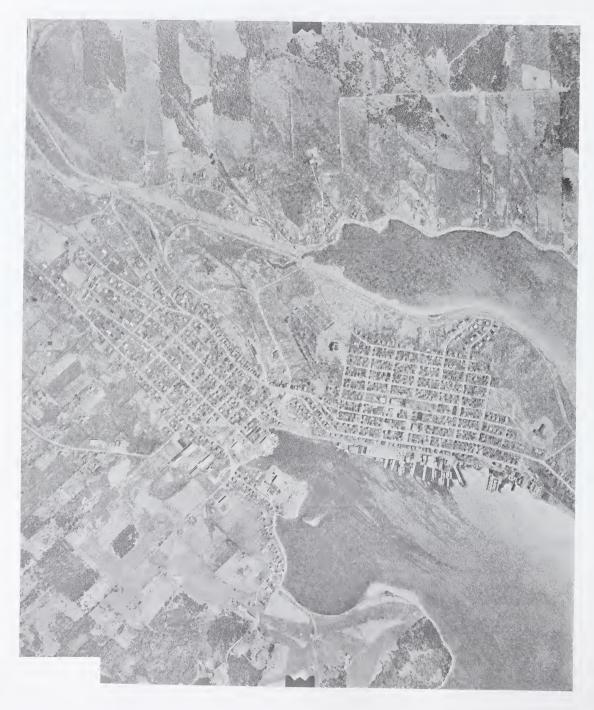
To help you read the aerial map, first study the map of Lunenburg area given on page 5 of this lesson.

If you were to fly from the Front Harbour over the Old Town, across the Back Harbour and to the Second Peninsula, you would get an overall picture as shown in the topographical map, on page 9.

Be sure you know the meanings of these words to help you with today's lesson.

dock - a platform built on the shore or out from the shore

seaport - a city or town with a harbour that ships can reach from the sea



Map 3 Aerial View of Lunenburg

1.	Study	the	Lune	nburg	area	as	shown	in	Map	2,	page	5.	Then	study	the
	aerial	vie	w of	Lunen	burg	as	shown	in	Map	3,	page	9.			

On map 3, page 9, mark the following. Use the numbers given to show:

- 1. Front Harbour
- 8. Industrial Area
- 2. Back Harbour
- 9. Blockhouse Hill
- 3. Old Town
- 10. Docks
- 4. New Town

- 11. Swimming area
- 5. Hospital Area
- 12. Dump
- 6. Forest Area
- 13. Railway

7. Farm land

Mark with an S an area where you would find a school and a school playground.

2. In what way do you think Alberta farms are different from the farms in

	aerial map			

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		the Old	l Town	had ar	ı advan							
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		idustria										
	CK Hai	<b></b>									11/de - 5150-	
	erial m	ap shov	vs littl	e devel	.opment	alon	g the	Bac	k Ha	rbour		Gi

7. Trace your finger along the Front Harbour on the aerial map.

	· .
2.	What are the long platforms projecting out into the water?
3.	In a sentence tell why the long platforms are useful.
Of 1	what use are the larger buildings along the dock area?
Of 1	what use are the larger buildings along the dock area?
	ck the statements which describe Lunenburg.

### FOURTH DAY

Comparing a Distance Aerial View to a Close-up View

Figure 1 shows a view of Lunenburg taken from a plane flying high above the town. Figure 2 is a close-up view of a smaller area taken nearer the ground. See Figure 1 page 14, Figure 2 page 15.

Study both these figures carefully. Is or New Town?	Figure 2 a view of the Old Town
Why do you think so?	
Yes, it is a picture of the Old Town!	
The main street with the parked cars on Figure 1. Can you see the cars parke	
Can you find the Back Harbour on Fig	ure 2? Mark it with an $\underline{X}$ .
Can you find the railway tracks on Fig Street Map on page 5, to see where they a	
In the top right corner of Figure 2, c hill leading to Blockhouse Hill?	an you see the beginning of a steep
Name the things you can see on the docks	in Figure 2.

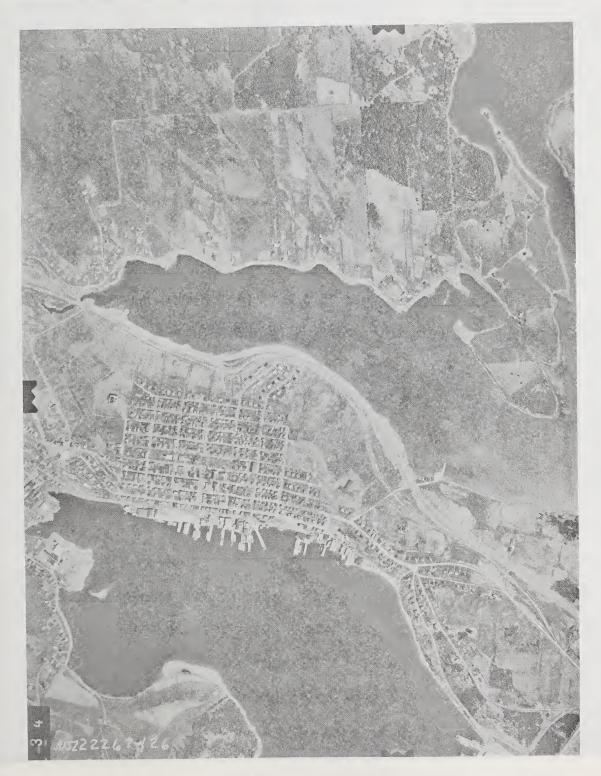


Figure 1 Aerial View of Lunenburg

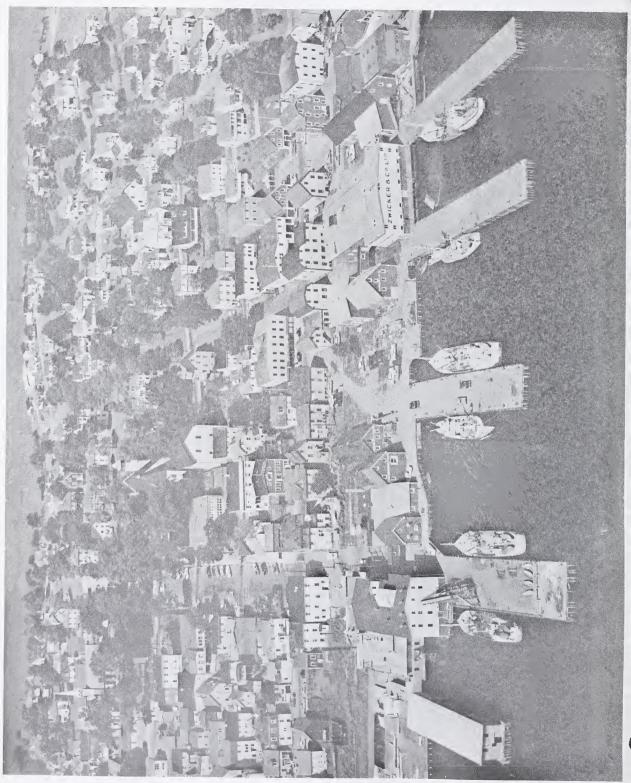


Figure 2 Close-up Aerial View of Lunenburg

On Figure 2 find the building of Zwicker and Company Ltd. What type of business do you think this is?
How many churches can you find in Figure 2?
Can you locate them on Figure 1?
Can you locate them on Figure 1:
From studying Figure 1 did you realize the town of Lunenburg has so many trees?
I didn't.

From the map study you have learned that Lunenburg has two main sections. There is the Old Town which is situated on the neck of the peninsula right in the front part of Front Harbour. The Lunenburg Harbour is surrounded by land. This gives the harbour and the town natural protection from storms.

The Industrial area is located in the Old Town along the water front. This makes shipping of the products very simple because of the nearness to the sea.

The aerial map shows that much of the land in the Lunenburg area is forested. The forests are important to the Lunenburg people as the timber from the forest area is very useful in connection with one of Lunenburg's main industries.

The farms are much smaller than farms in Alberta. One reason for this is that the land is hilly and another reason is that Nova Scotia is a smaller province than Alberta. In many parts, Nova Scotia is only 56 km wide.

	think many pot your answer.		unenburg	have a veg	getable ga.	rden?
				· · · · · · · · · · · · · · · · · · ·		
What a				1 1 -		
	re the advanta on page 5?	ges or an	aeriai pho	otograpn o	ver a stre	eet map
		ges or an	aeriai pho	otograpn o	ver a stre	eet map a
		ges or an	aeriai pho	otograpn o	ver a stre	eet map :
		ges or an	aeriai pno	otograpn o	ver a stre	eet map a
		ges or an	aeriai pno	otograpn o	ver a stre	eet map :
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found	on page 5?					
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found	on page 5?					
found	on page 5?					

5.	If you were driving through the town of Lunenburg in your car, which map would help you the most? Underline the answer you chose.
	1. Street Map found on page 5
	2. Figure 1
	3. Figure 2
	Explain why your choice would be the best one.
6.	What are some disadvantages of an aerial photograph?

### FIFTH DAY

### ART

# Crayon Rubbings

Materials:

wax crayon

thin drawing paper or newsprint

textured surfaces

pencil

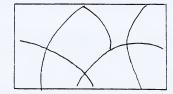
Look for surfaces which feel rough when you touch them.

Begin by looking only in the room you are working in now.

1. Begin by making an outline drawing or a design with pencil, on your drawing paper.

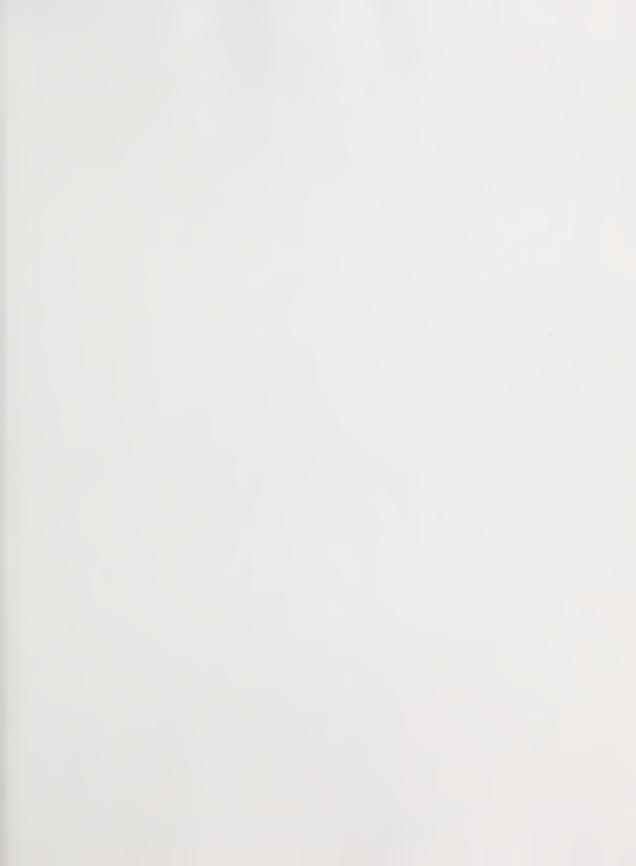


outline drawing



design

- 2. Hold your drawing against a surface which has a definite texture. Rub the side of the crayon on your paper. Fill in one part of your design. The texture will be transferred to the paper by the crayon.
- 3. Place the paper against a different texture and transfer this texture to another part of your page. Textures may be repeated or overlapped.
- 4. Look at your crayon textures. Should some spaces be left, or should all spaces be filled with textures? Should you outline each crayon-rubbing area on your page?









### LESSON RECORD FORM

### 0503 Social Studies

Unit III Revised 88/01

Signature

Parent's or Supervisor's Comments:

For School Use Only

Assigned

Teacher: _____

Assignment

Code: _____

Graded by: _____

Lesson Grading

Social Studies: _____

Art:

Neatness:

Date Lesson Received:

Lesson Recorded:____

Signature

## For Student Use

(If label is missing or incorrect)

File Number:

Lesson Number: _____

Date Lesson Submitted:

### Grading Scale:

- A Very Satisfactory
- B Satisfactory
- C Needs Attention
- D Unsatisfactory

Apply Lesson Label Here

Name
Address

Postal Code

Please verify that preprinted label if for correct course and lesson.

Teacher's Comments:

Keep this sheet when returned - it is your report.

### ALBERTA CORRESPONDENCE SCHOOL

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### FIRST DAY

What is One of the Major Industries in Lunenburg?

In your study of Alberta industries you learned that some of the Alberta people made their living by ranching, some by lumbering, and others made their living by farming.

The people of Lunenburg also work for a living to provide for their families.

Study the pictures on the following pages. As you study the pictures decide:

- 1. What is one of the major industries in Lunenburg?
- 2. What is another major industry in Lunenburg?
- 3. Why are these two industries interdependent?



Figure 1 Schooner and Dories Heading Out to Sea



Figure 2 A Netful of Haddock

Courtesy: Nova Scotia Information Service

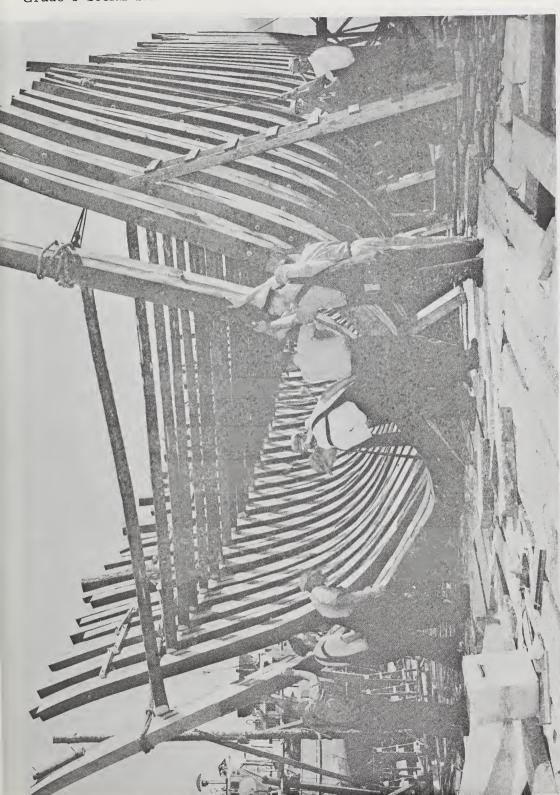


Courtesy: Nova Scotia Information Service

Figure 3 Examining the Catch

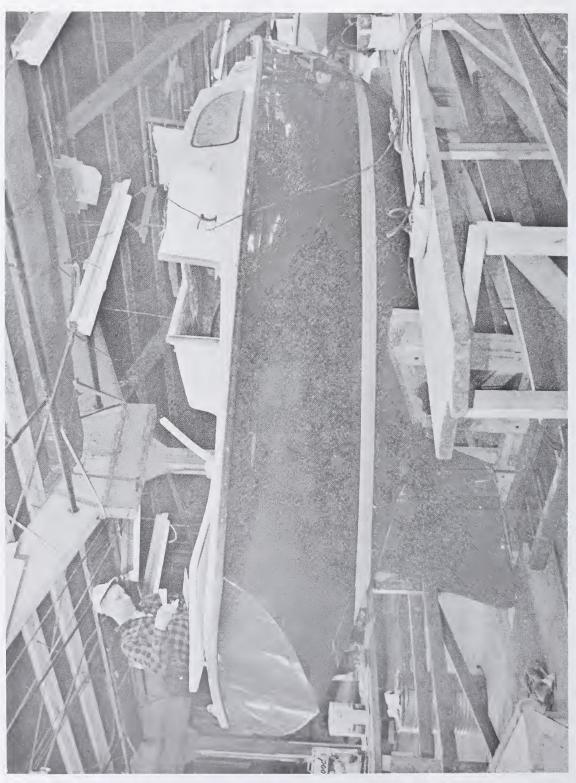


Figure 4 Mending the Nets Courtesy: Nova Scotia Information Service

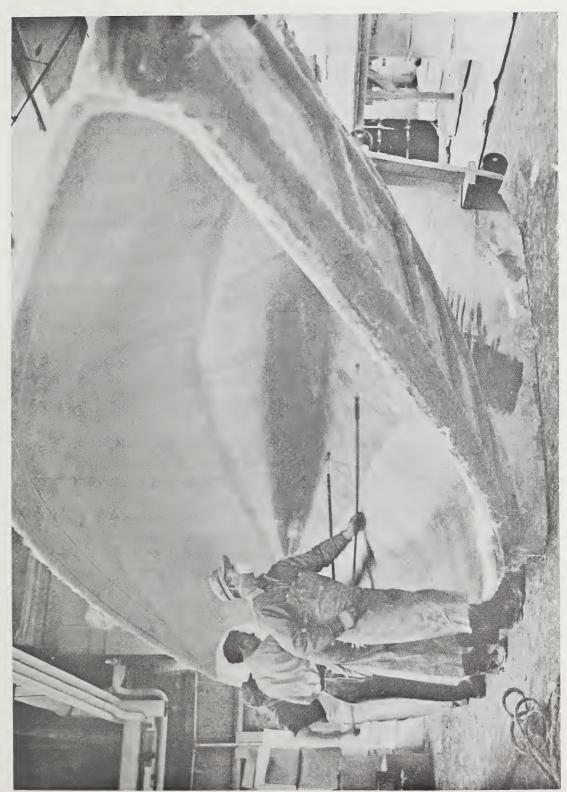


Courtesy: Nova Scotia Information Service

Figure 5 Bolting the Ribs in Place



A Fresh Coat of Paint



Courtesy: Nova Scotia Information Service

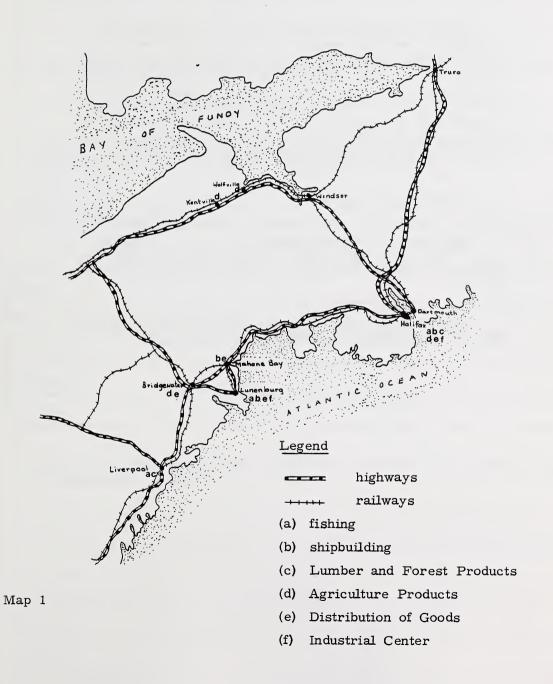
ure 7 Treatment is Applied to the Inside

CEND	FOR	CORRECTION
SELVE	TOT	COMMEDIA

	Figures 1, 2, 3 and 4 show the	industry.
	Figures 5, 6 and 7 show the	industry.
	From the picture study, did you decide that fishing is one of Lunenburg? Did you decide that boat building is another induyou are right.	the industries stry? If you
are	In a paragraph tell how and why the fishing and shipbuilding interdependent.	industries

## SECOND DAY

Does Lunenburg's Location Determine Its Industries?



Map 1 shows a small section of Nova Scotia. It shows Lunenburg, some major cities and towns, and their industries.

Before we begin the study today, let us review the meaning of the word seaport. A seaport is a town or city with a harbour where ships dock to load and unload goods and products. Ships sail into and out of a seaport harbour easily because it is open to the sea. A seaport town cannot exist by itself. It depends on the neighboring towns and communities to supply products for distribution (selling and buying products produced in an area). It also depends on neighboring centers to buy the products it produces.

Lunenburg is a seaport.

Study Map 1. Find another seaport on the Atlantic side. Did you select Halifax? If you did your choice was correct.

Using Map 1, trace with your finger the main highway and the main railway from Halifax to Liverpool.

			e what you o		l about the hi	ghway and ma	ain railway
2. Tell	l how	the ma	in highway ai	nd main r	ailway affec	t Lunenburg'	s business.
Z . I Ca.	. 110 11						
			mplete this or				check off
		Fishing (a)	Shipbuilding (b)	Lumber Products (c)		Distribution of Goods (e)	Industrial Center (f)
Halifax							
Bridgew	ater						
Mahone	Bay						
Lunenbu	rg						
Wolfville	е						
			list two ma	in centers	s that compe	te with Lune	nburg in

Would	you say that Lunenburg is an Agricultural Center?
	industry is carried on in Lunenburg that is not carried on in water, Mahone Bay, or in Wolfville?
	· · · · · · · · · · · · · · · · · · ·
From listrib	Map 1 decide what products would be sent to Lunenburg for
	Map 1 decide what products would be sent to Lunenburg for

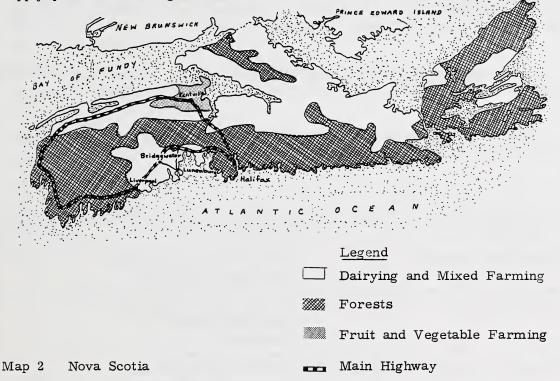
If you have trouble deciding, study  ${\tt Map\ 1}$  and the pictures given in yesterday's lesson.

Check your work with the answers at the end of Lesson 30.

## THIRD DAY

## Industry in Lunenburg

In yesterday's lesson you learned that fishing and shipbuilding are two of the main industries in Lunenburg. The town of Lunenburg depends on towns in the surrounding areas for agricultural products. In return, Lunenburg can supply places like Bridgewater and Kentville with fish.



What town is located within the forest area?

Most forest products from the area would be received in Liverpool.

The fruit and vegetable farming region is known as the Annapolis Valley. The town of Kentville handles the products of this region and distributes them all over Nova Scotia and Canada.

Trace the main road from Lunenburg to Kentville on Map 2. Through what major city do you pass when you drive from Lunenburg to Kentville?

From the map would you say Lunenburg is the main center for any other industry?

The fishing industry is now the main reason the town of Lunenburg exists. Although Lunenburg was once the shipbuilding capital of Nova Scotia the modern steel ships are mostly built in Halifax. The shippards in Lunenburg build some ships and do repair and service work on the ships.

Lunenburg's main industry supplies jobs for people. These workers require other services and these services are supplied by other workers.

Table 1 shows the major companies in Lunenburg and the number of workers each employs.

Industry	Purpose	Employees
National Sea Products	Preserving and packaging fresh and frozen fish	464
Atlantic Bridge	Builds boats, builds fish processing plants and equipment	332
Lunenburg Foundry and Engineering	Builds and repairs ship engines, ship instruments	224
Adams and Knickle	Dry fish	150
Smith and Rhuland	Build special ships and do ship repairs. Known throughout the world	63
Zwicker and Co. Sea Products	Dry fish	26
Power Brothers Ltd.	Air Conditioning, Plumbing Heating	44

Table 1

Table 2 below shows a breakdown of the number of men and women working in different occupations in Lunenburg.

Position	Male	Female
Managerial	139	13
Professional (Doctors, teachers)	62	62
Clerical	43	60
Sales (Stores, garages, etc.)	44	52
Service	72	97
Transport	79	5
Farm	DE 500 DE	GAP CCC ESS CCC
Logging	60 60 60 G	
Fishing	108	one may may care
Craftsmen (Boatbuilders)	284	55
Laborers	40	4

Table 2

- 1. Underline the answer you think is correct in each statement.
  - (a) Fishing is an important occupation in Lunenburg.

(I agree, I strongly agree, I disagree)

(b) About one third of Lunenburg workers are employed in the Sea Products Plant.

(I agree, I strongly agree, I disagree)

(c) Most of the major Lunenburg companies deal with ship building or fishing.

(I agree, I strongly agree, I disagree)

- 2. Which of the companies in Table 1 do not deal directly with the fishing industry?
- 3. Which of the companies in Table 1 would be responsible for the boat building shown in Figures 5, 6 and 7 of the First Day?
- 4. Name 2 occupations in which there are no workers from the town of Lunenburg.

5. What kind of construction is done in Lunenburg?

Check your work with the answers at the end of Lesson 30.

## FOURTH DAY

## Comparing Lunenburg to Stettler, Alberta

From an aerial photograph it is possible to compare two towns and see in what ways they are similar and in what ways they are different.

The aerial photograph on the next page shows the town of Stettler and the area studied in Lessons 12 to 16.

Study the photograph carefully.

The railway begins in the bottom left corner. Trace the route it takes through the town. Can you find the railway station?

The main highway can be located on the right side halfway down the map.

Trace the route of the highway through the town.

Why	does the highway make a big curve before it gets to Stettler?
Wha	t two methods of transportation does Stettler have?
	t method of transportation does Lunenburg have that Stettler doesn't have?

Notice the two ovals in the town. The largest one is the Exhibition Grounds and the smaller one is a track on the school grounds. Locate the school buildings. The small rectangle south of the track is a tennis court.

Find the Exhibition Grounds. Locate the Curling Rink and Skating Rink directly east of the grounds.

Does the land around Stettler look flat or hilly?

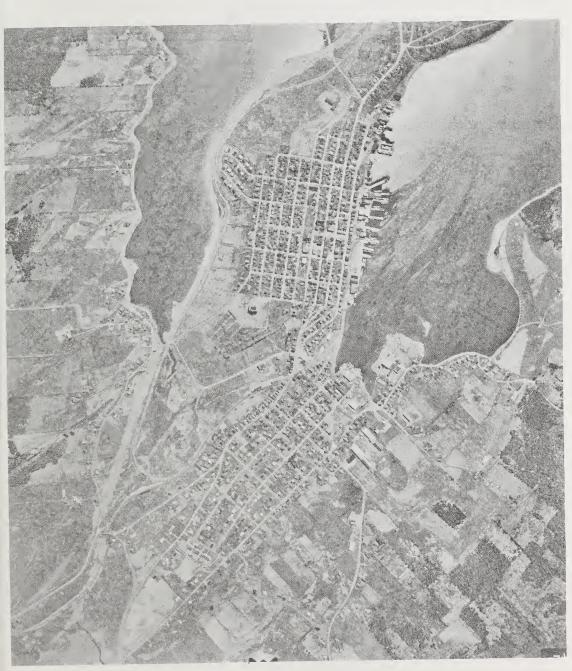
Study the aerial photograph of Lunenburg on page 19.





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## SEND FOR CORRECTION

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	ways does 'List at :		of Lunenbu	rg look d	ifferent th	nan the	town
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What do	vou think	is the mai	n industry	in the aı	ea aroun	d Stettle	er tha
	ettler its r						
0							
	e regions a	iround Lun	enburg and	Stettler			
	e regions a	iround Lun	enburg and	Stettler			
Study the			enburg and			ound Lu	nenbu
Study the			Ü			ound Lu	nenbu
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Study the			Ü			ound Lu	nenbu

5.	How	is	the	area	around	Stettler	different	than	the	area	around	Lunenburg?

6. Compare the life in Stettler to the life in Lunenburg. Pretend you are living in these towns.

Compare	Lunenburg	Stettler
What jobs your father might do		
How his job would affect the way your family lives		
What chores you might do to help your family		
Recreation activities you would have		
The food you would eat		
How you would dress		
The work you would do when you completed school		
What you might do on your holidays		

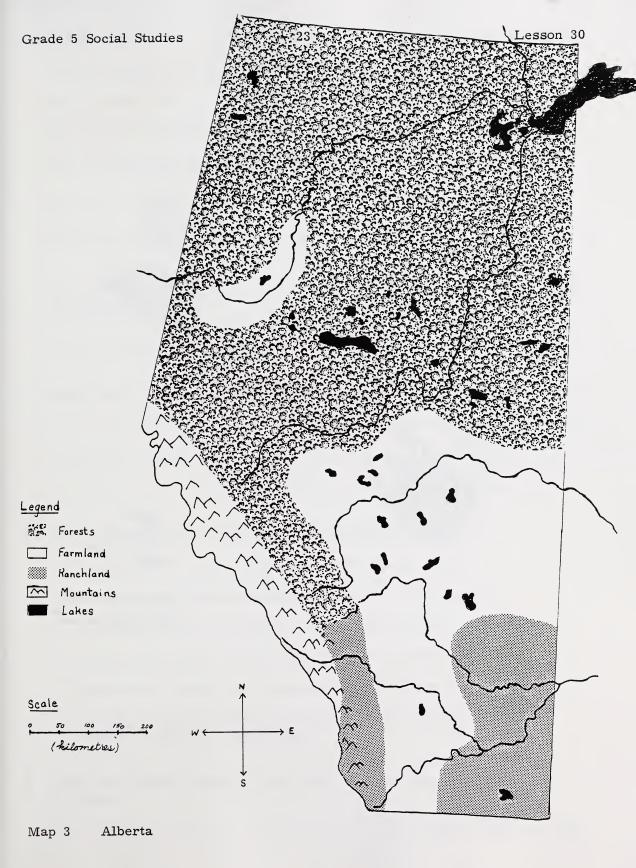
## FIFTH DAY

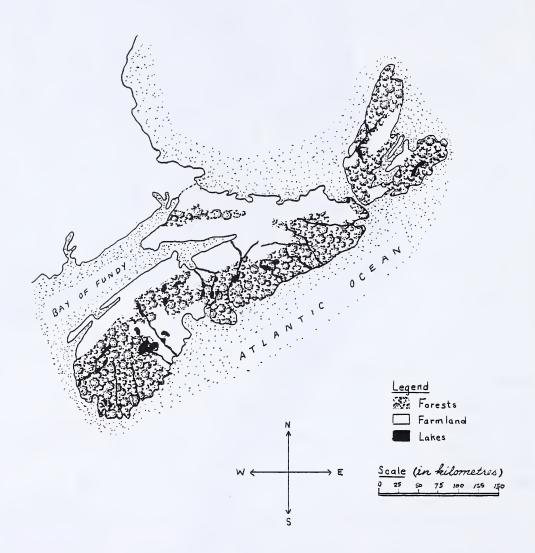
# Comparing Nova Scotia to Alberta

Today we are going to compare the province of Alberta to the province of Nova Scotia.

## SEND FOR CORRECTION

Bef words, nany a:	what v	u study ways Al	the m	aps of	these erent fi	two rom	provin Nova S	ces, e Scotia.	explain (Try	in to	your think	own of
many a	s you	· ·										
		<del></del>										
				<u> </u>					# P - 18 M -			
n what	wavs	is Albe	erta the	e same	as No	ova S	cotia?					
	<b></b>											
									······			_





	Study the maps of Nova Scotia and Alberta on pages 23 and	24.				
	Use the scale given on the map to answer the following que	stions.				
1.	How wide is Alberta at its widest point? (a)	-kilometres				
v	How wide is Nova Scotia at its widest point? (b)	_kilometres				
2.	How long is Alberta? (a)	—kilometres				
	How long is Nova Scotia? (b)	_kilometres				
3 .	On a piece of paper trace the outline of Nova Scotia. Cut ou map. How many times does the province of Nova Scotia fit in of Alberta?					
4.	What land form features does Alberta have that Nova Scotia	does not have?				
5.	Underline the correct answers for the following questions.					
	(a) In Alberta the rivers flow (east, west, north, south).					
	(b) In Nova Scotia the rivers flow (east, west, north, south	1).				
	(c) Alberta's rivers are (longer, shorter) than those in Nov	a Scotia.				
	(d) Alberta has (more, fewer) lakes than Nova Scotia.					
	(e) Alberta has (more, less) farmland than Nova Scotia.					
	(f) In which province would you expect the size of the farm larger? (Alberta, Nova Scotia)	is to be				
6.	Name one industry shown on the map of Alberta that Nova Snot have?	Scotia does				

-	 				
				nd 7 affe n Alberta	
 	 ·	<del></del>	<del> </del>		
 <del></del>	 			 	

## ANSWERS TO LESSON 30

## Page 11

- 1. They are close together and lead to the waterfront.
- 2. They carry supplies to town and take finished products to market.

3.

	Fishing (a)	Shipbuilding (b)	Lumber Products (c)	Agriculture Products (d)	Distribution of Goods (e)	Industrial Center (f)
Halifax	V	~	/	/	~	~
Bridgewater				/	/	
Mahone Bay						
Lunenburg		~				
Wolfville						

4. Halifax, Mahone Bay

## Page 12

- 5. Halifax
- 6. No
- 7. Fishing, industrial centre
- 8. agriculture products, lumber and forest products
- 9. ship building

## Page 16

- 1. (a) strongly agree
  - (b) agree or strongly agree
  - (c) strongly agree
- 2. Power Brothers Limited
- 3. Smith and Rhuland
- 4. Farming, logging
- 5. Boat building

## Page 25

- 1. (a) about 700 km
  - (b) about 175 km
- 2. (a) about 1300 km
  - (b) about 550 km
- 3. about 5 or 6
- 4. ranchland, mountains
- 5. (a) east, north
  - (b) east, west, south
  - (c) longer
  - (d) more
  - (e) more
  - (f) Alberta
- 6. ranching

## Page 26

- 7. Shipping, deep sea fishing
- 8. People in Alberta eat more beef, pork and chicken, while people in Nova Scotia would eat more fish. People tend to eat more of what is easily available and can be obtained fresh.

### LESSON RECORD FORM

## 0503 Social Studies

Unit III Revised 88/01

Signature

Parent's or Supervisor's Comments:

For Student Use

(If label is missing or incorrect)

Lesson Number: _

Grading Scale:

Date Lesson Submitted:

A - Very Satisfactory

B - Satisfactory
C - Needs Attention

D - Unsatisfactory

File Number:

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correct course and lesson.

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Art:
Neatness:
Date Lesson Received:

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#### ALBERTA CORRESPONDENCE SCHOOL

#### MAILING INSTRUCTIONS FOR CORRESPONDENCE LESSONS

### 1. BEFORE MAILING YOUR LESSONS, PLEASE SEE THAT:

- 1) All pages are numbered and in order, and no paper clips or staples are used.
- (2) All exercises are completed. If not, explain why.
- (3) Your work has been re-read to ensure accuracy in spelling and lesson details.
- [4] The Lesson Record Form is filled out and the correct lesson label is attached.
- (5) This mailing sheet is placed on the lesson.

#### 2. POSTAGE REGULATIONS

Do not enclose letters with lessons.

Send all letters in a separate envelope.

#### 3. POSTAGE RATES

First Class

Take your lesson to the Post Office and have it weighed. Attach sufficient postage and a green first-class sticker to the front of the envelope, and seal the envelope. Correspondence lessons will travel faster if first-class postage is used.

Try to mail each lesson as soon as it has been completed.

When you register for correspondence courses, you are expected to send lessons for correction regularly. Avoid sending more than two or three lessons in one subject at the same time.

### FIRST DAY

# Shipbuilding in Nova Scotia



Figure 1 The Bluenose

Study Figure 1 carefully. Do you know what kind of ship this is? What power would be used to move this ship? If you have a dime (except for a 1967 one) look on the back of it. Do you see the same ship as in Figure 1? This ship is Canada's famous "Bluenose".

The Bluenose was built in Lunenburg by Smith and Rhuland yards in 1921. This same year she was entered in the annual International Fisherman's Cup race and won. After the first race she never lost the cup.

In order to enter the race, ships from all over the world had to prove they were good on the fishing grounds as well.

The Bluenose was designed for racing, but she was also a fishing vessel, spending every season on the Banks and bringing catches of salt cod back to Lunenburg.

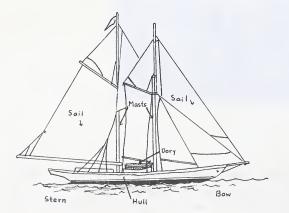
The Bluenose is a schooner. Find this word in your dictionary and write the meaning here.

schooner -

In the mid 1800's Nova Scotians began to build many ships to sail to the fishing grounds. Since engines had not been invented, how did they get the ships to move?

These ships had to be

- 1. fast to compete with other ships,
- 2. large to carry many fish,
- 3. strong to withstand the violent storms at sea.



What is the purpose of the masts?

What is the front of the ship's hull called?

Study Figure 2 carefully. Find the dory.

Figure 2 Schooner

Do you know what a dory is?

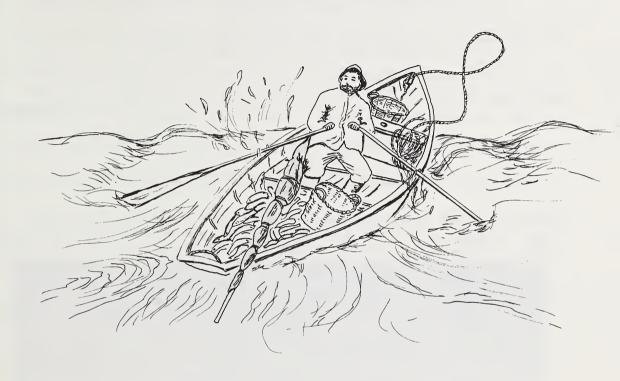


Figure 3 Fisherman in a Dory

Did you say that the dory is a small rowboat? Study Figure 3 carefully. What other way could be used to power the dory?

From the picture what would you say would be the most important thing about the way the dory would have to be built?

Notice the clothing worn by the fisherman. Why would he dress this way?

	After studying the picture carefully list three dangers or hardships the man would face.
,	
	After studying Figures 2 and 3, describe what the job of the schooner was.
	What was the dory used for?



Figure 4 A Fishing Schooner Courtesy: National Film Board

Since most men became captains of schooners after many years' experience, they would keep records over the years of the best areas for fishing. They would listen to other captains tell where they had located large schools of fish.

These methods were not sure. Fish may feed in one spot for years and then move to another feeding ground. So fishing was always a gamble.

Since each man was paid a share of the catch, if the catch was small, all of them would suffer.

n wh	at way ha	ave Canao	lians sh	own thei	r pride	in the Bl	luenose?
What	were thr	ee impor	tant thin	gs to co	n <b>s</b> ider	in buildin	g a schoone
						*	
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	resource ories?	did Nova	a Scotia	have tha	ıt was ı	ised to b	uild schoone

Check your work with the answers given at the end of Lesson 31.

### SECOND DAY

## Shipbuilding Then and Now

Lunenburg has always been a shipbuilding town. In the early days there were no roads and travel by sea was a necessity. By using the resources at hand — the forests, the people of Lunenburg built fine strong ships necessary to fish the Banks and carry goods to the markets of the world.

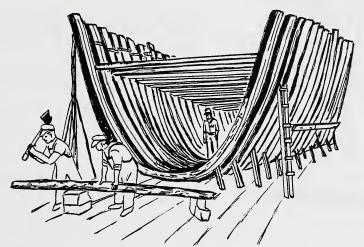
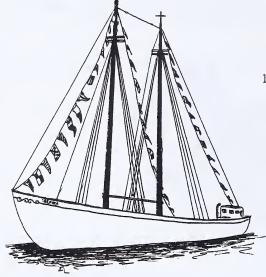


Figure 5 Ship Builders at Work

The Bluenose was a fine example of the ability of the shipbuilders of Lunenburg to build one of the best schooners in the world.

In 1946 the Bluenose was wrecked on a reef in the West Indies. In 1963, an exact replica, Bluenose II, was built in Lunenburg, as a monument to the skill and ability of Lunenburg ship builders.

Study Figure 6 carefully.



1. What is the name for this type of ship?

Figure 6

2.	Name	two	things	the	schooner	was	used	for	in	fishing.
----	------	-----	--------	-----	----------	-----	------	-----	----	----------

3. What were the dories used for?

4. Where were the fish stored?

Figure 6 shows the Theresa E. Conner, the last schooner to fish the Grand Banks. She is now preserved as a part of the Lunenburg Fisheries Museum. Visitors can see this schooner maintained in working order and go on board to feel the thrill of movement on a living, floating vessel.

5. Look at the ship in Figure 7.  How is it different from the schooner in Figure 6?
6. What power would it use to make it move?
Figure 7 Cape North  7. Do you see as many dories on this vessel as on the schooner in Figure 4?
8. Do you know what this kind of ship is called?
9. After the Second World War these ships replaced the schooners as the main deep sea fishing vessels. Considering the source of power each of these two ships use, why do you think they replaced schooners?

Did you know the schooners were powered by wind and draggers were powered by engines?

	· · · · · · · · · · · · · · · · · · ·
	called a dragger because it hauls in the fish with big nets along the ocean floor
	easons why this would be an advantage over one or two mening the fish and bringing them to the schooner.
2. List two indo over from school	ustries that would go out of business when draggers took ners.
	ew industries that would grow as a result of the change from chooners to diesel-powered steel draggers.

Check your work with the answers at the end of Lesson 31.

#### THIRD DAY

Then answer the questions based on what Read the following poem aloud. you see and feel in the poem.

Sea-Fever

I must go down to the seas again, to the lonely sea and the sky, And all I ask is a tall ship and a star to steer her by, And the wheel's kick and the wind's song and the white sails' shaking And a gray mist on the sea's face and a gray dawn breaking,

for the call of the running tide Is a wild call and a clear call that may not be denied; And all I ask is a windy day with the white clouds flying, And the flung spray and the blown spume, and the sea gulls crying.

I must go down to the seas again,

I must go down to the seas again to the vagrant gypsy life To the gull's way and the whale's way where the wind's like a whetted knife;

And all I ask is a merry yarn from a laughing fellow rover, And a quiet sleep and a sweet dream when the long trek's over.

John Masefield

Courtesy: Time for Poetry

1.	Why do you think the poet titled the poem Sea Fever?
2. Supp	Do you think "The Sea Gets in Your Blood" would also be a suitable title?
3.	(a) Do you think the poet likes the sea?
(ъ)	Which verse tells you this?
(c)	What type of ship do you think the author is describing in the poem?
4.	Do you think this poem would describe a fisherman? Why?

The poet does not mention any hardships to be faced at sea.

He says nothing about the dangers of colliding with icebergs in heavy fog or being tossed about by fierce Atlantic gales. These winds cause mountainous waves that sometimes destroy ships. Imagine being out in a dory in a gale!



Study Map 1 carefully. Notice the fishing areas close to shore and those which are some distance from shore.

Map 1 Fishing Grounds

5. Which fishing ground would you say is the largest?



Figure 8 Some Early Fishermen

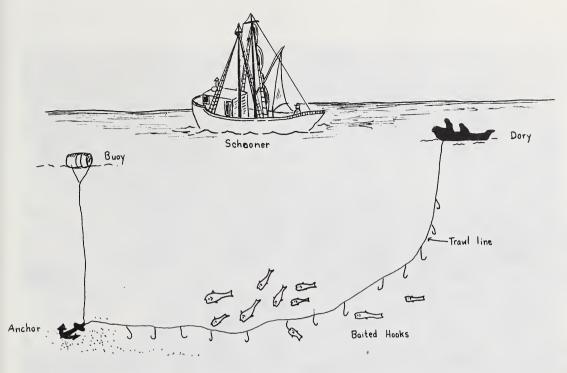


Figure 9 Trawling

The trawl lines may have as many as 2000 baited hooks.

When the dorymen pull in the trawl, one man takes off the fish and the other rebaits the hooks and resets the trawl from the other side of the dory.

Since cod can weigh up to 12 kg each, this can be very hard work.

9. What are other hardships the dorymen face?

When the dorymen return to the schooner their work is not finished.

They must unload all the fish onto the schooner.



Figure 10 Dorymen

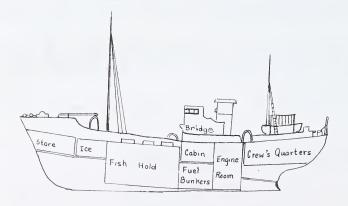


Figure 11 The Parts of a Trawler

The fish are split, cleaned and salted down in the ship's hold.

Why do you think the fish were salted? -

Study Figure 12 below very carefully.

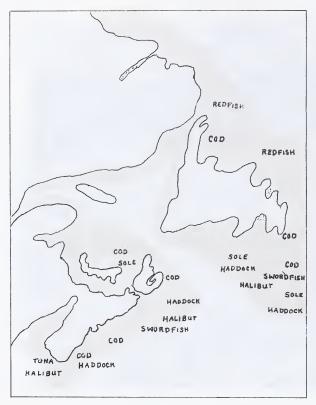


Figure 12

What do you think the men in the picture are doing?
Does this seem like a good way to preserve fish? Why?
In a wet climate which method would be best to preserve the fish?

From studying Figure 12 what would you need a lot of in order to dry fish?

#### FOURTH DAY



Study Map 2 carefully.

Besides Cod, what are some other kinds of fish caught by offshore fishermen?

Map 2 Fishing Banks

You will recall from Second Day that offshore fishing is no longer done by schooner and dory. Today power-driven ships called draggers haul the fish in with big nets that are dragged along the ocean floor.

2. Can you think of any advantages of this new method?

Schools of fish are spotted by an echo sounder. This is an electronic device which sends out signals which bounce off any object in the water or on the ocean floor. The operator can tell the difference between fish and the ocean floor by the signals. This instrument makes locating the fish much easier.

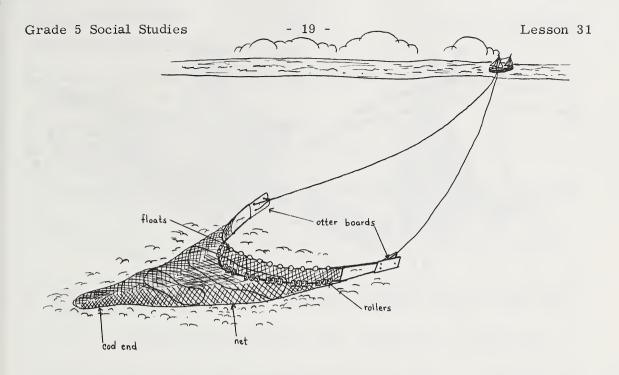


Figure 13 A Rigged Otter-trawl

3. As this net is dragged over the ocean floor, the otter boards spread the net to its widest extent. What is the purpose of the floats?

4. What is the function of the rollers? (Remember: the net is dragged along the ocean floor.)

Check your work on pages 18, 19 with the answers given at the end of Lesson 31.

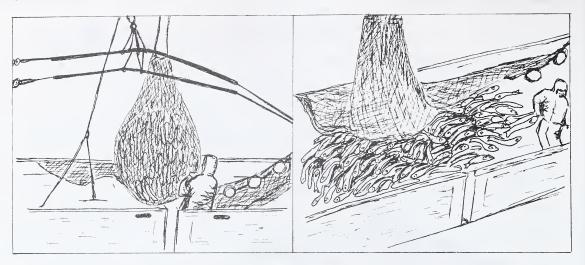


Figure 14 Cod end hoisted aboard Figure 15 Dumping the catch

Study Figure 14 carefully. How is the net hauled aboard?

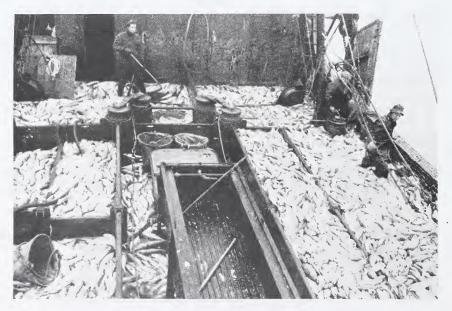


Figure 16 Fish in Pens

The fish are sorted, cleaned, washed and stowed in ice in the hold.

The draggers are out for short periods and bring back large supplies of fresh fish.

This can be a problem. If there are no laws to limit the number of fish caught, man can easily overfish our oceans.

# SEND FOR CORRECTION

				_				
Why are draggers	boats like (	Cape North	(Figu	re 7,	page 9),	calle	d "fresh	fis
ar agg cr r	•							
					<del>,</del>			
	-		<del></del>					
Why do condition	ou think the sthey work	e dorymen	were	called	Bluenos	e? (	Consider	the
	<b>y</b>							
						-		

4. Fill in the following chart comparing fishing by the old method (using schooners and dories) with fishing by new methods (draggers).

	OLD	NEW
Type of boats used		
Type of power used to move ship		
How fish are caught		
How fish are preserved		
Number of men needed to fish (Use the words many or few, to indicate the number.)		
How fish are located		
Advantages of this method		
Name 3.		
Disadvantages of this method		
Name 3.		

### FIFTH DAY

#### ART

### Collage

The word collage refers to a type of picture in which materials are glued on to a background. (They are not stitched.) Collage helps us learn to arrange shapes, colors, and sizes to form a pleasing picture. It helps us to choose and make decisions because we can juggle the shapes, colors, and textures. We can see them in different positions before they are finally glued down.

HISTORY - In France, in the early 1900's, two artists, Pablo Picasso and Georges Braque, began to experiment. They pasted pieces of wallpaper and oilcloth into their paintings. Later they added words and letters cut from magazines. They were the first artists to begin to use collage.

Some suggested materials for collage

paper sandpaper greeting cards calendars labels from cans playing cards paper plates unwanted photographs cancelled stamps aluminum foil gum wrappers postcards newspaper colored magazine advertisements children's play money

paper napkins

fabric shoelaces rickrack rope, string, twine feathers artificial fur ribbons measuring tape burlap towels netting discarded clothing yarn discarded printed sheets rug samples felt

... and things like ... ice-cream sticks toothpicks burned matches lollipop sticks leaves bottle tops safety pins old clock parts stables paper clips bobby pins shells fishbones rubber bands pebbles ticket stubs

Today I would like you to make a collage. Use the things you can find to make a picture or a design. You may use some of the items listed above, or you may use any others that you find.

What kind of picture will you make? Perhaps the materials you have found will give you an idea for a picture. Straw would make a bird's nest or a thatched roof.

Perhaps you have been on a trip and have seen some very beautiful mountains. You could make a collage showing mountains, clouds, and a lake.

You will need scissors - to cut out shapes.

You will need a strong glue - to mount your shapes.

- First, try to arrange your shapes in a pleasing manner.
- Try many arrangements. Have them overlap, or place them side-by-side.
- Try to use the same color, shape, or fabric more than once. Don't try to use too many different materials on one picture.
- Stand back to look at your whole picture before you glue it down. If you wish to cover the collage with clear plastic to protect it, you may do so.
- Remember, when you are planning your picture or design, use your imagination. Don't be afraid to experiment. It can be fun. Try it and see for yourself.

### ANSWERS TO LESSON 31

## Page 6

- 1. It was used for fishing and racing.
- 2. The put the picture of the Bluenose on the ten cent coin.
- You need strength to withstand the violent storms at sea, size to carry great loads of fish, and speed to compete with other ships.
- 4. Nova Scotia had forests which could be used to build schooners and dories.

## Page 8

- 1. It is called a schooner.
- 2. It was used to catch and carry fish.
- They were used to catch fish.
- 4. The fish were stored in the bottom of the dory.

### Page 9

- 5. It does not have tall masts. It has a smoke stack so it must be powered by engines. It looks larger.
- 6. It would use gasoline or diesel fuel.
- 7. No
- 8. It is called a dragger because it hauls in the fish with big nets that are dragged along the ocean floor.
- Cheap fuel was available and the ship did not need to depend on the wind.

## Page 10

- 10. The ship with engines would not need to rely on the wind in order to move.
- 11. It is quicker and catches more fish.
- 12. mast builders, sail makers, wooden ship builders.
- 13. diesel engines, steel industry.

## Page 12

- 1. He loves the sea and longs to get back to it.
- 2. Yes, it becomes a natural part of your life.
- 3. (a) Yes
  - (b) verses 2 and 3
  - (c) He is describing a schooner.
- 4. No. The poem describes a vagrant gypsy life while a fisherman's life is a lot of hard work and the fisherman lives at a certain place even though his job may take him away from home for a while.

## Page 13

5. The Grand Banks is the largest fishing ground.

## Page 14

- 6. They are using a basket to catch fish.
- 7. They might be early explorers or fisherman in the 1800's.
- 8. It is done away from shore in deeper water.

# Page 15

 They face sinking or capsizing, strong winds, ocean currents, ice and fog.

## Page 16

10. It was a method of preserving them so they did not go bad.

# Page 17

- 11. They are drying the fish.
- 12. Yes. Dried fish do not spoil easily.
- 13. Salt would be best since it does not depend on the weather.
- 14. You would need sunshine and space to spread out the fish.

# Page 18

- 1. Redfish, sole, haddock, halibut, swordfish, tuna.
- 2. It is faster, easier and catches more fish.

# Page 19

- The floats keep the top of the net open so fish can be swept into the net.
- 4. The rollers prevent the net from being caught and torn. They make it easier for the net to move along the ocean floor.



## LESSON RECORD FORM

### 0503 Social Studies

Unit III Revised 88/01

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or incorrect)
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Lesson Number: ____

Date Lesson Submitted:

# Grading Scale:

- A Very Satisfactory
- B Satisfactory
- C Needs Attention
- D Unsatisfactory

Apply Lesson Label Here

Name
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Please verify that preprinted label if for

correct course and lesson.

Т	ea	ch	er'	s (	Co	mi	me	nts:

Signature

#### ALBERTA CORRESPONDENCE SCHOOL

#### MAILING INSTRUCTIONS FOR CORRESPONDENCE LESSONS

#### 1. BEFORE MAILING YOUR LESSONS, PLEASE SEE THAT:

- (1) All pages are numbered and in order, and no paper clips or staples are used.
- (2) All exercises are completed. If not, explain why.
- (3) Your work has been re-read to ensure accuracy in spelling and lesson details.
- (4) The Lesson Record Form is filled out and the correct lesson label is attached.
- (5) This mailing sheet is placed on the lesson.

#### 2. POSTAGE REGULATIONS

Do not enclose letters with lessons.

Send all letters in a separate envelope.

#### 3. POSTAGE RATES

First Class

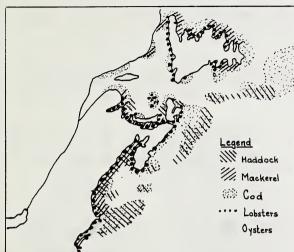
Take your lesson to the Post Office and have it weighed. Attach sufficient postage and a green first-class sticker to the front of the envelope, and seal the envelope. Correspondence lessons will travel faster if first-class postage is used.

Try to mail each lesson as soon as it has been completed.

When you register for correspondence courses, you are expected to send lessons for correction regularly. Avoid sending more than two or three lessons in one subject at the same time.

### FIRST DAY

## Inshore Fishing



Map 1 Fishing Grounds Along East Coast



Figure 1

Study Map 1 carefully.

From the legend you can tell where different kinds of fish are found.

Where do you find lobster and oysters?

Τ	•	

Where can haddock and cod be found?

-	•	•	

Did you say that lobster and oysters are found along the coast?

Cod and haddock are found farther out to sea.

Look at Figure 1.

2

What does the man have on his wheel barrow?

3.	(a).	 	 	
	, .			

Do you see more of these in the picture? (b)	<del></del>
Notice the boats in the picture. In what ways are they di offshore fishing boats?	ifferent from
4. (a)	
Do you think they are powered? (b)	
Do you think they would be suitable for offshore fishing?	Why or why not?
(c)	

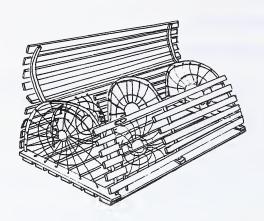


Figure 2 shows an illustration of the objects seen in Figure 1.

Did you know they were lobster pots ?

Have you ever seen a live lobster?

If you have you will know that it is not like a fish, but crawls along the bottom of the sea.

Figure 2

Fishermen soon learned lobster could not be lured to bite a hook, but they would crawl into a box-like trap which contained bait. These traps, called <u>pots</u>, were made of strips of wood (laths) and a mesh was made of twine. One or two flat rocks are attached to the inside bottom of the loat. These pots are weighted to sink to the ocean floor. The fisherman can lower one or as many as 50-60 tied to a long line.

Crabs are also caught in traps.



Figure 3 Lobster Fishing

From Map 1 you saw that lobster are found close to shore.

Figure 1 shows small dieselpowered boats used for lobster fishing.

Fishing for lobster is one type of inshore fishing.

5. Why do you think it is called inshore fishing?

The majority of fishermen in Canada are employed in the inshore fishing industry.

Lobster fishing is <u>seasonal</u> . Explain seasonal means.	in your own words what you think
Did you say that seasonal means that figure certain times of the year? There is a from the first of December until the las	law that allows lobster fishing only
Give a reason why you think there is su	ach a law.
6	
There is also a law that states that lobe be thrown back into the ocean.	ster weighing under one pound must
Why do you think this is the law?	
7	
	What do you think the man in Figur 4 is doing?
	8
~ ~	
In the best specified in the second	
	What other work must a fisherman do besides catching fish?
	9
Figure 4	

What	do	you	think	the	purpose	of	the	fence	is	in	the	background?
10		· · · -										
***************************************										···		

Did you know this was a trap called a weir?

A weir is a long fence leading from shore out into the water and forming a large corral.

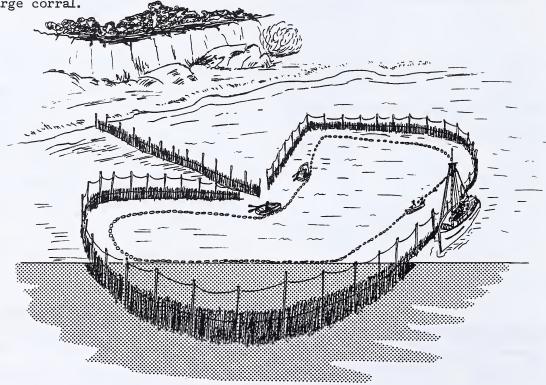


Figure 5 Weir

The fence and trap are made with stakes driven into the ocean floor, joined with cable and covered with brush or twine.

	Study	Figure	5	carefully.	How	do	you	think	the	fish	get	into	the	trap?	
11.															

What are the men in the dories doing?
12.
What is the large boat outside the weir for? 13
As soon as the fish are caught they are taken directly to the market or cannery.
Herring and mackerel are two kinds of fish caught by inshore fishing, using weirs or gill nets.
Figure 6 Gill Nets
14. Study Figure 6 carefully. Explain how you think the fish are caught by this net.
(a)
Why do you think they are called gill nets?
(b)

What is the purpose of the small objects floating on the surface of the water
(c)
What are the objects at the bottom of the net? (d)
What would they be used for? (e)
15. The object on the right with a flag on it is called a buoy.
What is the purpose of the buoy?
What is the large wheel on the boat used for? 16

One of the very small fish that is caught is the sardine. A sardine is actually a small herring.

Herring are used as bait by fishermen and also provide the raw material for fish meal and oil.

16. Lobster season is from December to May. What would be some hardships faced by inshore fishermen having to fish during this time of year?

applies.

Name tl	ree ways	inshore fi	shermen o	atch fish.	
		·			
-					

	Inshore	Offshore
Use draggers to catch fish		
Use weirs, gill nets		
Away from home for months		
Catch lobster		
Main catch is cod		

Check your work on pages 1-7 with the answers given at the end of Lesson 32.

### SECOND DAY

Comparing the Life of Fishermen to the Life of Farmers

The life of a fisherman in some ways is similar to that of a farmer. Both depend on nature for their crops. Acts of nature such as disease or storms can destroy their crops and their equipment.

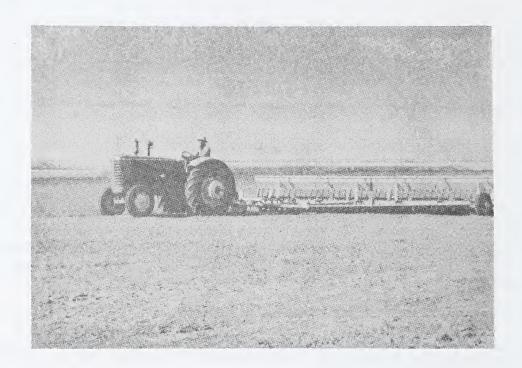


Figure 7 Seeding Time

The fisherman does not have to plant his crop and so has an advantage over the farmer. Think of a way that this could also be a disadvantage for the fisherman. Write your answer here.

The farmer can see his crop and does not have to spend time trying to find it as the fisherman does.

Scientists have helped farmers improve crops, fight disease and improve soil conditions. Use of fertilizers and irrigation have helped farmers increase their crops.



Figure 8 Hard Red Spring Wheat

Until now scientists have not been able to improve the fisherman's crop. There are certain questions they have not been able to find the answer to. Some species of fish disappear from an area and no one knows where they go. Just as suddenly they may return. What certain species of fish eat, is also a question still puzzling scientists.

There is no way of increasing the fisherman's crop the way there is a farmer's. The only way to make sure a species of fish, or an area is not fished out, is to make laws limiting the size and amount of fish harvested. This law limiting the fisherman's catch affects the amount of money he can make as he is paid by the weight of his catch.

It is often difficult to take fish out of the sea and it is not always profitable to sell them.

Fishing, like farming, is seasonal. Sometimes a poor season is followed by a good season and both farmers and fishermen must be willing to gamble.

During the busy seasons both farmers and fishermen work from sunup to sundown.

Both farmers and fishermen require expensive equipment for their jobs. Repairs must be made when this equipment breaks down. Often storms destroy the fisherman's traps and nets. Although the cost of equipment goes up, the price received for their crop doesn't.



Figure 9 Fisherman's Crop



Figure 10 Fishermen Mending Nets



Figure 11 Swathing Grain



Figure 12 Combining



Figure 13 Fishing Boat

Figures 11, 12 and 13 show the farmer and fishermen harvesting their crops. Study these pictures carefully.

1. Why?	Which of these two jobs looks the most difficult?
2. Why?	Which job do you think would be the most dangerous?
3.	What equipment is being used by the farmer?
4.	What equipment is being used by the fisherman?
Complete	the following.  weight farmers nature type irrigation fertilizers fishermen
5.	Scientists have helped (a) improve their crop, but until now scientists have not been able to help the (b) improve their crops.  Use of (c) and (d) have helped increase some crops.
	The amount of money earned by a fisherman depends on the  (e) of the fish he catches and on the (f)  of fish he catches.
	Storms, early frosts, drought, and some crop diseases are known as "acts of (g)".



Figure 14 Prairie Town



Figure 15 Fishing Village

# SEND FOR CORRECTION

Study Figures 14 and 15 carefully. Write a well organized paragraph naming several ways in which the life of a fisherman is different from the life of a farmer. (Describe what each sees, hears, the weather in their location, the dangers each would face, the rewards of their work and length of time away from home.) Compare also the ways in which their lives are the same.
·

## THIRD DAY

## Preserving the Crop

Ever since the days of John Cabot men have fished the Banks and returned home with their catch.

Since fish spoils very quickly, methods had to be found to preserve the fish during their long voyages.

In the early days there were two ways of preserving the fish.

Do you know what these ways were?

1.	and :	2.



Figure 16

What are the men doing in Figure 16?

3. Would this be a good way of preserving fish if the climate was wet?  Why or why not?
What else would be required to preserve the fish in this way?
Did you say a great deal of space? If you did you are correct.
In order to dry their fish, early fishermen had to land and live on shore for a long period of time. These were the beginnings of some of the early settlements in Canada. This was not the way Lunenburg was established however.
Did you say that salting was the other method of preserving the fish?
4. What advantages does salting have over drying the fish?
Whatever way is used to preserve the fish, they still have to be cleaned immediately after being caught.
In the early days this meant that even after a long day of fishing the men still had to clean the fish.
Two inventions made in Europe in the 1800's were very important to the fishing industry, and were the beginning of a new industry canning.

In France, a process of preserving food was discovered. The food was boiled and stored in air-tight jars. This process was called <u>canning</u> and it was found that the food would keep for a long time.

Then in England a man named Peter Durand invented a container for canning. This container was a tin can which could be sealed air-tight. By the year 1900, fish-canning had become an important industry in Canada.

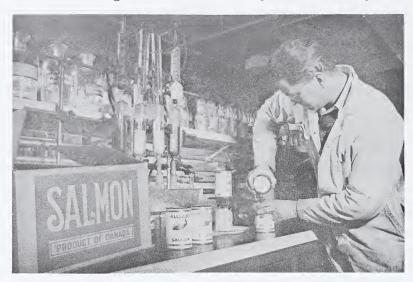


Figure 17 Canning

In order to preserve the fish by canning, it was important to get them to the cannery as soon as possible. This meant fishing voyages became shorter and the fisherman got to see his family more often.

Can you think of any other method of preserving fish which we use today?

I hope you said freezing!

Since the end of the Second World War, great improvements have been made in refrigeration. Ships now carry ice, and fish are carefully packed in the ice as soon as they have been caught and cleaned. The ice lowers the

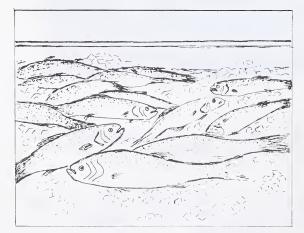


Figure 18 Fish in Ice

temperature of the fish and prevents spoiling. Even packed in ice, fish, like cod, will spoil within two weeks.

With modern refrigerated planes and trains, fish often spend more time in the hold of the ship than they do getting from the fish plant to your dinner table. This makes proper handling of the fish at sea very important.

Some fish and lobster are shipped live to stores and restaurants all over the world.

	Tame two methods used to preserve fish in the early days of fishing. Eive one disadvantage of each method.
	a)
	ь)
(	Tame two other methods used to preserve fish in the last fifty years.  Evice one advantage of each.
	b)
,	That industry began with the invention of the tin can?
,	That natural resource does this industry use?

Check your work on pages 16, 17, 19 with the answers given at the end of Lesson 32.

#### FOURTH DAY

## The Canning Factory

Fishing is a primary industry. Here men work with the raw products of nature.

The canning factory is a secondary industry. It takes the raw material which we cannot use and processes it into a product we can use.

Certain requirements need to be met in order to make an industry successful.

- 1. Raw material must be easily available.
- 2. Equipment is needed to process the raw material.
- 3. Skilled workers are needed to operate the equipment.
- 4. A market is needed to buy the product.
- 5. A fast, efficient method of transporting the product to market must be available.

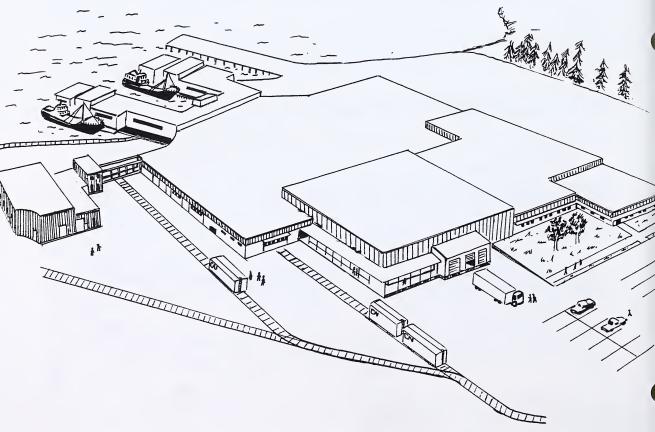


Figure 19 National Sea Products Plant - Battery Point, Lunenburg, N. S.

# SEND FOR CORRECTION



Map 2 Location of Fish Processing Plant

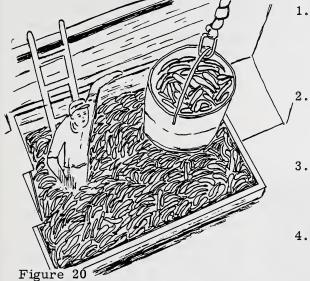
Study Figure 19 and Map 2. Keeping in mind the requirements for making an industry successful, explain:

1. Wh	y this	plant	1S	in a	a good	location	to	process	the	raw	materials.	
										,		

		· · · · · · · · · · · · · · · · · · ·						
-				<i>*</i>			· · · · · · · · · · · · · · · · · · ·	
How	would	people	in the	e town of	Lunenburg	benefit	from this	plant?

## The Canning Process

The National Sea Products Plant is in some ways like a town. Many people do many different jobs. In a town people depend upon each other. In the plant each person's job depends on other people's jobs.



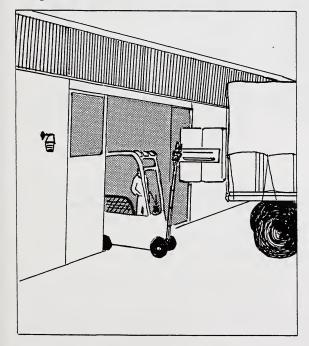
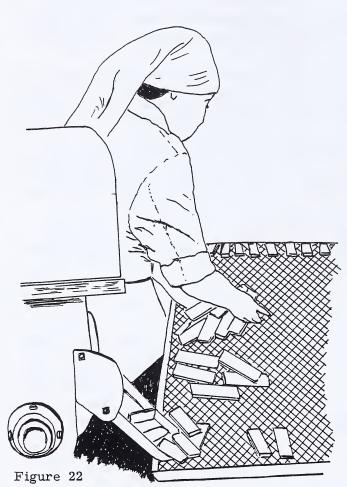


Figure 21

- . When fish arrive at the factory they are removed from the boat by large buckets. These buckets are emptied into chutes and the fish slide down to the culling station.
- . At the culling station people sort the fish according to size and weight. About 227 kg of similar size fish are put into one box.
- 3. Trucks carry the fish from the unloading stations to cold holding rooms. The fish are kept here until they are ready to be processed.
- 4. The fish are processed in several different ways.
  - 1. They can be made into fillets. In this process the head, tail and backbone are cut off. A machine pulls off the skin and the fish is cut into halves. The fillets may be packaged to be sold either fresh or frozen. Sometimes whole fish with the head, tail and skin are sold fresh or frozen.
  - 2. The plant also processes the fish by smoking. While the fillets are heated on racks in an oven, smoke from burning sawdust is blown over the racks of fish. These smoked fillets are then frozen. The smoking adds to the taste but does not preserve the fish.
  - Some fillets are pressed and frozen into large blocks. They are then cut into pieces, dipped in batter and fried. Then they are cooled, packaged and put in cold storage.

4.



Many industries have by-products. A by-product is produced from left overs of the raw material. In the canning industry, fishmeal is produced from the head, skin and backbones of the fish. These trimmings are cooked, mashed and ground up. The dry material left is the fishmeal and is a very nourishing food used to feed hogs and chickens. Much oil is left when the trimmings are processed and it can be used to make margarine or to tan leather.

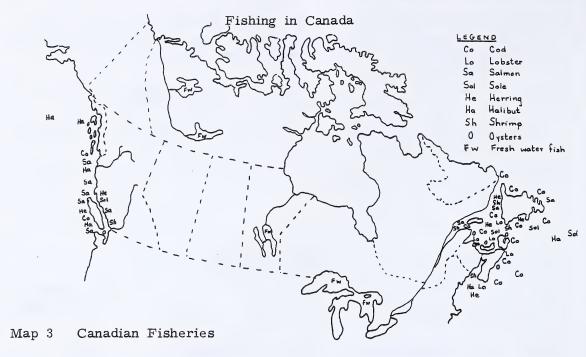
The National Sea Products
Plant in Lunenburg is one of the
largest and most modern fish
processing plants in the world.
Processed fish from here are
shipped to all parts of Canada
and to other countries of the
world.

With better transportation systems and better freezing of fish it is possible to deliver fish to all parts of Canada in as good condition as fresh fish on the coast.

# SEND FOR CORRECTION

		·				
	<del></del>					17.10
		:				
				<b>1</b>		
s a proces	sing plant	like a to	wn or a c	ity?		
					~	
n how the n	nain indust	ries of I	Lunenburg	are depende	ent on e	ach ot
	teachers,	shopkee	pers and t	radesmen o	lepend o	n thes
70						
	in how the r	in how the main indust lo doctors, teachers,	in how the main industries of I	in how the main industries of Lunenburg lo doctors, teachers, shopkeepers and t	lo doctors, teachers, shopkeepers and tradesmen o	in how the main industries of Lunenburg are dependent on e

## FIFTH DAY



Study the map of Canada carefully. In what areas besides the Atlantic Coast do you think fishing would be an important industry?

The table below shows the value of fish caught across Canada in 1964.

Area Value (Millions of \$)

Atlantic Coast 87

Pacific Coast 48

Inland Areas 13

148

What do you think is meant by inland areas?

Name some lakes and rivers across Canada that might have good fishing.

Do you know if any of the lakes or rivers you named have pollution problems?

How would this affect the fishing industry?

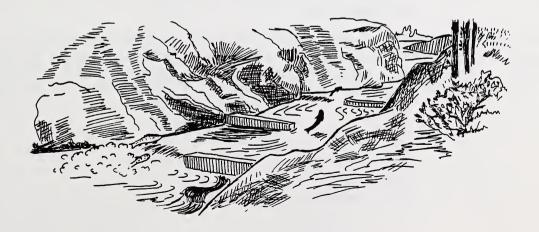
British Columbia also has a thriving fishing industry.

From studying the map on page 26 what do you think is the main fish caught on the Pacific Coast?

Did you say salmon? Good!

Salmon are hatched in rivers and swim downstream into the ocean. After living in the ocean for a few years they must return to fresh water to lay their eggs. This is called spawning. Many man-made obstacles such as dams on rivers and pollution prevent them from returning to their spawning beds.

On some rivers, ladders have been built to by-pass dams and difficult sections of British Columbia's rivers. In the Fraser Canyon problems were created by the dumping of rock into the river during the building of the C.P.R.



Salmon are caught on their way to the spawning grounds. Since there are large numbers of them entering the rivers this method shown in Figure 24 is a good way to catch them.

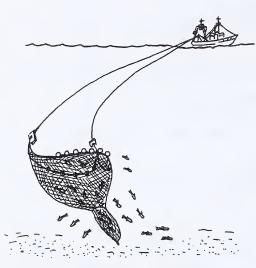


Figure 24 Purse Seining

Find the rivers along the coast of British Columbia. Notice that most of the rivers are quite far from the major cities of Vancouver and Victoria. The fish must be processed before they are transported. This means canning factories in British Columbia are located at the river's mouth.

In inland fishing in Canada's many lakes, Great Slave, Lake Winnipeg, Lake Athabasca and Lesser Slave Lake, summer fishing is done with gill nets. In winter fishing is done through holes cut in the ice. Some of the fish caught in fresh water are whitefish, perch, pickerel and lake trout. Fresh water fish are sold in a variety of forms: whole, fresh, frozen and filleted.

The following table shows the number of people in Canada employed in Fisheries.

# Employment in the Fisheries

PROVINCE	EMPLOYED IN FISHING 1964
Newfoundland	22, 615
Nova Scotia	13,333
New Brunswick	5, 790
Prince Edward Island	3, 329
Quebec	4,210
Ontario	2, 952
Manitoba	5,642
Saskatchewan	2,010
Alberta	4,211
British Columbia	13,300

Fishing has always been an important industry in Canada. In many communities like Lunenburg, fishing is a way of life and everyone depends on the catch.

Today, the fishing industry faces many problems. Fishermen now get very little more for their fish than they did in the past, so they must catch many more fish to make a living. To catch more they must invest in expensive equipment, or work on a ship owned by a company.

Pollution caused by industries is threatening fish life in many lakes and rivers.

Large fishing fleets from other countries offer stiff competition to Canada's fishermen. Some countries have large factory ships which sweep the ocean floor like vacuum cleaners and process the fish right on board. Many of these ships fish off the Grand Banks and in Pacific waters. Overfishing by other countries is one of the main threats to Canada's fisheries. Many countries regard fishing as an industry worth almost any investment. They spend a great deal of money on the modern methods and do a great deal of scientific research on fish resources.

These countries are not breaking any law by fishing the Grand Banks or Pacific waters. International law says that deep-sea fishing belongs to no country. Any country can catch the fish as long as they stay outside of each country's territorial limits. At present Canada's territorial limits are only 20 km from shore. Some countries have already extended their territorial limits to 80 or 320 km from shore to protect their fishermen.

Canada is a country with one of the world's longest coastlines and some of the best fishing grounds. She will have to find some ways to solve the problems facing the fishing industry today, if she wishes to preserve a renewable resource that has provided a means of livelihood for thousands of Canadians for over 400 years.

# SEND FOR CORRECTION

					-								
Suggest	a so	olution	for e	ach	one	of	the	prob	lems	you	liste	d in	question
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Explain	why	salmo	n can	be	caug	ht	clos	e to	the	mout	hs of	rive	ers.
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		<u> </u>	

#### ANSWERS TO LESSON 32

## Page 1

- 1. They are found along the shore.
- 2. They are found farther out to sea.
- 3. (a) He is carrying lobster pots.
  - (b) No.
- 4. (a) They are smaller and have no masts.
  - (b) Yes, there are no sails and they are too large to be dories.
  - (c) No. They are too small and too open to travel well in heavy ocean waves.

## Page 2

5. It is done close to the shore.

## Page 3

- 6. If too many are caught, they may disappear. The lobster season occurs when the lobsters are not breeding so breeding lobsters are not disturbed.
- 7. This is so small lobsters will develop and grow and have a chance to breed so more lobsters will be found.
- 8. He is mending a net.
- 9. He mends nets, builds lobster pots, cleans fish and packs them in ice.

## Page 4

- 10. It is a method of catching fish close to shore.
- 11. They get in through the two openings in the weir.

# Page 5

- 12. They may be catching fish or checking the nets.
- 13. It will store the fish and take them to the cannery.
- 14. (a) The fish become caught in the net as they swim into it.
  - (b) They are called gill nets because they get caught in the fish's gills and hold it from swimming away.

## Page 6

- (a) The "floats" keep the net from sinking and show the location of the net.
- (d) They are weights.
- (e) They hold the bottom of the net down.
- 15. It shows where the end of the net is located and helps to keep the net up.
- 16. It is like a fishing reel. The net is wound on to it for storage.

# Page 7

- 16. They face cold weather, ice and storms.
- 17. They use lobster pots, weirs and gill nets.

18.

	Inshore	Offshore
Use draggers to catch fish		✓
Use weirs, gill nets		
Away from home for months		~
Catch lobster	~	
Main catch is cod		V

# Page 13

- 1. Probably fishing. Both are hard work, but fishermen appear to have more physical work to do. The farmer has many machines to help him. Fishermen have fewer machines and still do a lot of heavy lifting.
- 2. Again it is probably fishing. Both workers can be injured by machinery, but the fisherman has to worry about storms and ice and large waves.
- 3. He is using a swather and combine.

- 4. He is using a crane pulley, knives, boats, engines.
- 5. (a) farmers
  - (b) fishermen
  - (c) irrigation
  - (d) fertilizers
  - (e) type
  - (f) weight
  - (g) nature

# Page 16

- 1. (a) salting
  - (b) drying
- 2. They are putting fish out to dry in the sun.

## Page 17

- 3. No, the fish would just rot or spoil.
- 4. It is not dependant on weather and does not require a lot of space.

## Page 19

- 5. (a) Drying needs dry, warm weather needs a lot of space
  - (b) Salting fish can still spoil if left for a long time lots of salt is not good for a person's diet
- 6. (a) Canning lasts a long time
  - easy to store and transport
- 7. The canned fish industry began with the invention of the tin can.
- 8. It uses both fish and tin. These are both natural resources.

# Page 21

 It is close to the source of raw materials and has access to several forms of transportation. It has the machinery and is close to a source of skilled workers. It is close to large markets in both Canada and the United States.

# Page 22

- Roads, trains and ships are available to take the products to market.
- 3. This plant creates jobs for local people and provides canned fish for the town.



## LESSON RECORD FORM

## 0503 Social Studies

Parent's or Supervisor's Comments:

For Student Use

(If label is missing or incorrect)

File Number:

Lesson Number: ___

Grading Scale:

Date Lesson Submitted:

A - Very Satisfactory

B - SatisfactoryC - Needs AttentionD - Unsatisfactory

Unit III Revised 88/01

Signature

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	91.4		e verify that preprinted tabel if for correct course and lesson.
			 correct course
- 1			2

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Name

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Assigned
Teacher:
Assignment
Code:
Graded by:
Lesson Grading
Social Studies:
Art:
Neatness:
Date Lesson Received:
Lesson Recorded:

Teacher's Comments:			
	9	Signature	
		o.g. a.a.o	

#### ALBERTA CORRESPONDENCE SCHOOL

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- (4) The Lesson Record Form is filled out and the correct lesson label is attached.
- (5) This mailing sheet is placed on the lesson.

#### 2. POSTAGE REGULATIONS

Do not enclose letters with lessons.

Send all letters in a separate envelope.

#### 3. POSTAGE RATES

First Class

Take your lesson to the Post Office and have it weighed. Attach sufficient postage and a green first-class sticker to the front of the envelope, and seal the envelope. Correspondence lessons will travel faster if first-class postage is used.

Try to mail each lesson as soon as it has been completed.

When you register for correspondence courses, you are expected to send lessons for correction regularly. Avoid sending more than two or three lessons in one subject at the same time.

#### FIRST DAY

This week we will review the work we have taken during the year. For most exercises you will be expected to write well-organized paragraphs, using complete sentences, good English and correct punctuation.

The following outline will help you organize your work.

## Writing a Report

- 1. Read the question carefully.
- 2. Review lessons to find information needed to answer the question.
- 3. Make a list of all the points you find that seem to answer the question.
- 4. Organize your ideas and points into an outline by selecting the main ideas.
- 5. Under each main idea list facts to support the main idea.
- 6. You may find some main ideas have no facts to support them. Review the lessons further to find more information.
- 7. Make a final outline.
- 8. Use this outline to write your finished report. Write the report first in rough. Check punctuation, sentence structure and spelling. Use your dictionary to find the spelling of words you are not sure of.

#### SEND FOR CORRECTION

1.

Describe the difference in climate between Nova Scotia and Alberta in both
summer and winter. Review Lesson 1 if you are not sure of the factor
that influence climate.

2.

In your own wor							words.
settlement							
diversified farm	L				 		
				 	 	A	
interdependent		· · · · · · · · · · · · · · · · · · ·		 			
forage crops —							
iorage crops —							
crop rotation			0220	 	 	**************************************	
bucker					 		
				 	 <del></del>		,
C-11					 		
faller				 			
timber cruiser							
	41				 		

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7.7.7.1.7.1

# SECOND DAY

## SEND FOR CORRECTION

1.	Fishing has been an important industry in Nova Scotia for hundreds of years. Imagine you are a fisherman in Lunenburg. Write a story about one of your fishing trips. Include the following information in your story.
	<ul> <li>description of your boat and equipment</li> <li>the methods you use to catch fish</li> <li>the types of fish you catch</li> </ul>
	- dangers you face

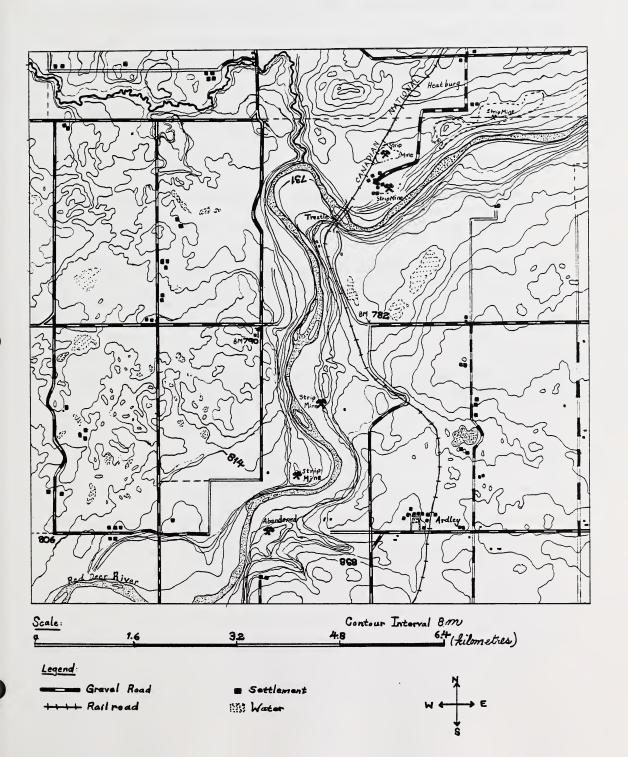
3.

2.	Fill	in	the	following	chart	comparing	factors	that	influence	the	life	of	a
	fishe	ern	nan.	farmer a	ınd log	ger.							

Factors	Fisherman	Farmer	Logger
Ways he depends on nature			
Describe his crop.			
What acts of man or nature can affect his crop?			
Dangers he faces			
Seasons he works			
Equipment he needs			
In what ways are these three jo	bs similar?		
		·	
			······································

## THIRD DAY

## SEND FOR CORRECTION

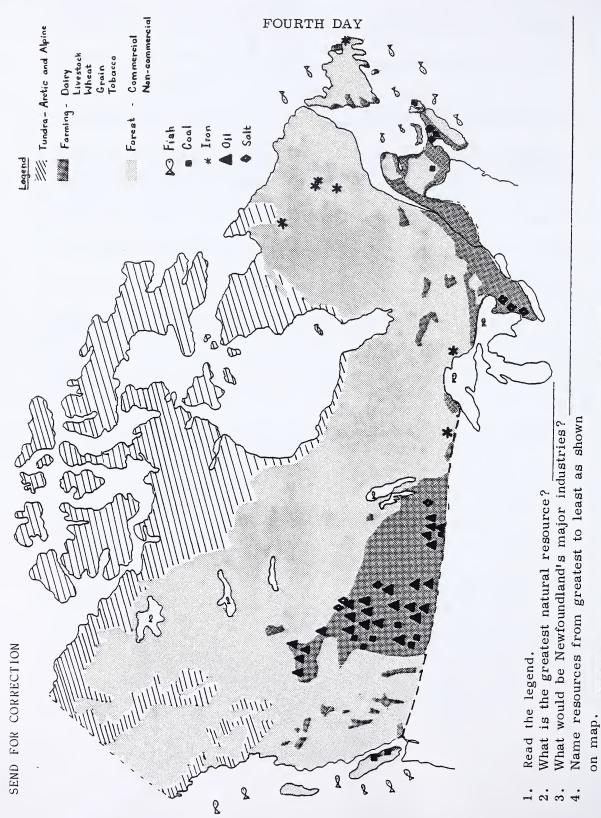


1.

Use the map on page 7 to answer the following questions.
Name the river shown on the map.
The contour interval is
The scale is inch(es) equal to one mile.
The contour lines are very close together beside the river. What does this tell you about the land beside the river?
What is the distance between the roads that run north and south?
Did you notice that there are many settlements on the map? What do you think people might do for a living in this area?

2.

In what ways Alberta?	are	the	farms	in	Nova	Scotia	different	from	the	farms	in
							,				
								15-21-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-			
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						<del></del>					
			***************************************					_			



## SEND FOR CORRECTION

ec	Natural resources such as fish, forests and minerals have helped Canadome a leading industrial nation.
	What are natural resources?
	Why must natural resources be used wisely?
	What important natural resources are found near where you live?
	How do natural resources affect your life?

	ed in Canada?
-	
	re the locations of industries been influenced by the location or resources? Give examples.
-	
Describe	the ways that scientists have helped
	e the ways that scientists have helped
fisherme	en
Describe fisherme farmers	en
fisherme	en

logger in E	are a fisherman of Lunenburg, a farmer in Alberta, itish Columbia interdependent?	an

## FIFTH DAY

Vast, cold, empty. These are words used to describe Canada.

Write down as many words as you can think of to describe Canada.

Then write a paragraph describing what your idea of Canada is. Remember to use the many things you have learned about Canada this year. Try to give as accurate and complete a picture of Canada as you can. Remember to choose a title for your paragraph.

Use the outline for Making A Report given in First Day, Lesson 33.

END FOR (	CORRECTION
	WORDS I WOULD USE TO DESCRIBE CANADA





